

ANNUAL REPORT 2007-08

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1. GENERAL INFORMATION ABOUT THE KVK**1.1. Name and address of KVK with phone, fax and e-mail**

| Address | Telephone | | E mail |
|--|----------------|----------------|--|
| | Office | FAX | |
| Taralabalu Krishi Vigyan Kendra Kesarivana, Opp.: PG Centre, Tholahunase Davanagere – 577 002 | 08192 - 294568 | 08192 - 294568 | tkvk@taralabalu.org |

1.2 .Name and address of host organization with phone, fax and e-mail

| Address | Telephone | | E mail |
|--|--------------------------|-------------------|--|
| | Office | FAX | |
| Taralabalu Rural Development Foundation (TRDF), Sirigere – 577541, Chitradurga District Karnataka | 08194 – 268829 268842 | 08194 – 268847 | trdf@taralabalu.org |

1.3. Name of the Programme Coordinator with phone & mobile No

| Name | Telephone / Contact | | |
|------------------|---------------------|-------------|--|
| | Residence | Mobile | Email |
| Dr. Devaraja T.N | -- | 94482 52673 | tngdevaraja@yahoo.co.uk |

1.4. Year of sanction: 2004**1.5. Staff Position (as on 15th September 2008)**

| Sl. No. | Sanctioned post | Name of the incumbent | Designation | Discipline | Highest Qualification (for PC, SMS and Prog. Asst.) | Pay Scale with present basic | Date of joining | Permanent /Temporary | Category (SC/ST/OBC/ Others) |
|---------|---------------------------|------------------------|------------------------|-----------------|---|---------------------------------|-----------------|----------------------|------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | Programme Coordinator | Dr. Devaraja T.N. | Programme Coordinator | Fisheries | Ph.d | 12000-420-18300 12420 | 17.05.2005 | Permanent | Others |
| 2 | Subject Matter Specialist | Mr. Mallikarjuna B. O. | SMS (Agronomy) | Agronomy | M.Sc. | 8000-275-13500 8000 | 09.01.2008 | Permanent | Others |
| 3 | Subject Matter Specialist | Mr. Basavanagowda M.G | SMS (Horticulture) | Horticulture | M.Sc. | 8000-275-13500 8275 | 21.11.2006 | Permanent | Others |
| 4 | Subject Matter Specialist | Dr. Pradeep H.M. | SMS (Soil Science) | Soil Science | Ph.d. | 8000-275-13500 8000 | 25.06.2008 | Permanent | Others |
| 5 | Subject Matter Specialist | Mr. Prasanna Kumar N. | SMS (Plant Protection) | Plant Pathology | M.Sc. | 8000-275-13500 8000 | 24.06.2008 | Permanent | Others |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|-----------------------------|-------------------------|--------------------------------------|-----------------------------|--------|------------------------|------------|-----------|--------|
| 6 | Subject Matter Specialist | Mr. Raghuraja J. | SMS (Agricultural Extension) | Agricultural Extension | M.Sc. | 8000-275-13500 8000 | 23.06.2008 | Permanent | Others |
| 7 | Subject Matter Specialist | Dr. Jayadevappa | SMS (Veterinary) | Animal Science | M.V.Sc | 8000-275-13500 8000 | 29.01.2008 | Permanent | Others |
| 8 | Programme Assistant | Ms. Kavitha P. | Home Science | Human Development | M.H.Sc | 5500-175-9000 6025 | 01.06.2005 | Permanent | Others |
| 9 | Computer Programmer | Mr. Santhosh B. | Computer Programmer | Computer Science | B.Sc. | 5500-175-9000 5500 | 05.09.2008 | Permanent | Others |
| 10 | Farm Manager | Mr. Vijayakumara S.B. | Farm Manager | Genetics and Plant breeding | M.Sc. | 5500-175-9000 5500 | 23.06.2008 | Permanent | Others |
| 11 | Accountant / Superintendent | Mr. Mallikarjuna S.G. | Office superintendent cum Accountant | -- | B.com | 5500-175-9000 7950 | 01.06.2005 | Permanent | Others |
| 12 | Stenographer | Mrs. Mamatha H.M. | Stenographer cum Computer operator | -- | B.com. | 4000-100-6000 4300 | 27.06.2005 | Permanent | Others |
| 13 | Driver | Mr. Marulasiddaiah N.M. | Driver cum Mechanic | -- | BA | 3050-75-4950 3350 | 01.06.2005 | Permanent | Others |
| 14 | Driver | Mr. Shivakumar S. | Driver cum Mechanic | -- | SSLC | 3050-75-4950 3350 | 01.06.2005 | Permanent | Others |
| 15 | Supporting staff | Mr. Shivakumar B. | Office Assistant | -- | SSLC | 2550-55-3200 2720 | 01.06.2005 | Permanent | Others |
| 16 | Supporting staff | Mr. Shivakumar S.E. | Field Assistant | -- | SSLC | 2550-55-3200 2720 | 01.06.2005 | Permanent | Others |

1.6. Total land with KVK (in ha) :

| S. No. | Item | Area (ha) |
|--------------|---------------------------|--------------|
| 1 | Under Buildings | 1.75 |
| 2. | Under Demonstration Units | 0.25 |
| 3. | Under Crops | 8.0 |
| 4. | Orchard/Agro-forestry | 5.0 |
| 5. | Others | -- |
| Total | | 15.00 |

1.7. Infrastructural Development:

A) Buildings

| S. No. | Name of building | Source of funding | Stage | | | | | Status of construction |
|--------|-------------------------|-------------------|-----------------|--------------------|-------------------|---------------|--------------------|------------------------|
| | | | Complete | | | Incomplete | | |
| | | | Completion Date | Plinth area (Sq.m) | Expenditure (Rs.) | Starting Date | Plinth area (Sq.m) | |
| 1. | Administrative Building | ICAR | 04-01-2008 | 550 | 29.37 | -- | -- | Completed |
| 2. | Farmers Hostel | ICAR | 04-01-2008 | 300 | 18.82 | -- | 300 | |
| 3. | Staff Quarters (6) | ICAR | 04-01-2008 | 400 | 19.40 | -- | 400 | |
| 4. | Demonstration Units (2) | ICAR | 04-01-2008 | 160 | 6.41 | -- | -- | |

B) Vehicles

| Type of vehicle | Year of purchase | Cost (Rs.) | Total kms. Run | Present status |
|----------------------------------|------------------|------------|----------------|----------------|
| Tempo Cruiser (4 wheeler) | 2005 | 4,99,250 | 55,535 | Good |
| Hero Honda CD Deluxe (2 wheeler) | 2006 | 39,298 | 18,267 | Good |
| Tractor and Trailer (4 wheeler) | 2005 | 4,99,995 | 886 hours | Good |

C) Equipments & AV aids

| Name of the equipment | Year of purchase | Cost (Rs.) | Present status |
|-----------------------|------------------|------------|----------------|
| Xerox Machine | 2006 | 73,840 | Good |
| Digital Camera | 2006 | 19,900 | Good |
| Over Head Projector | 2006 | 19,935 | Good |
| TV with DVD Player | 2006 | 11,350 | Good |
| Computer + LCD | 2006 | 1,00,000 | Good |
| Refrigerator (LG) | 2007 | 10,000 | Good |
| Mixer | 2005 | 3,300 | Good |

1.8. A). Details SAC meeting conducted in 2007-081) **Date** : 4th October 2007**Total No of Members Present:** 22**Major Recommendations of the above SAC which are implemented / to be implemented during 2007-08**

| Sl. No. | Major recommendations | Action taken (during the last 6 months) |
|---------|---|---|
| 1 | 2 | 3 |
| 1. | To conduct demonstrations and to provide technical information on the management of Coconut Black Headed Caterpillar (CBHC). To test the nutritional tonic to Coconut trees developed by TNAU, Coimbatore which was successfully demonstrated by KVK, Salem | Crop is present through out the district but BHC is more prevalent in Channagiri, Harihar and Davanagere taluks in particular. Seventy percent of the coconut plantations are infested with CBHC. Survey conducted in the form of group discussion and field visits in collaboration with Horticulture department. Conducted one day workshop and Seminar on CBHC in collaboration with Department of Horticulture at Harihar (23.10.07) and APMC at Davanagere (31.10.07). Conducted method demonstrations- mechanical chemical and biological methods of control at Thurchghatta and Ramagondanahalli. Developed and distributed literatures about CBHC management (handouts) to the farmers. Given radio talk (AIR, Bhadravathi) and TV program (Kasthuri TV). Planned for FLD (2008-09) in larger area. Contacted KVK, Salem and obtained information on nutritional tonic. |
| 2. | To provide information on use of bio cultures for enrichment of vermicompost. | Vermicompost was enriched with Trichoderma and PSB and used in KVK instructional farm. FLD farmers were provided with information and materials for compost enrichment. Planned for pure culture production at KVK in the upcoming season. Conducted training program for 3 days in collaboration with ZP for SGSY beneficiaries (farm women SHG members) from 4 taluks. Given radio talk (AIR, Bhadravathi) |
| 3. | INM in Coconut and Arecanut with soil testing as prerequisite | Demonstrations have been conducted on INM in Coconut and Arecanut one hectare each at Ramagondanahalli after soil testing. |
| 4. | Preliminary visit to the villages before the start of Kharif season | 16 villages have been visited for Kharif season. |

| 1 | 2 | 3 |
|-----|--|--|
| 5. | To take up more work on dry land agriculture/ horticulture crops, particularly in Jagalur and Harapanahalli Taluks | Two training programmes have been conducted to popularize dry land agriculture / horticulture in Nandibevur and Budihal. Conducted FLD on cotton in 50 acres at Harapanahalli Tq. Gave radio talk on Dry land horticulture (AIR, Chitradurga) Planned for up coming season 2008-09 |
| 6. | Popularization of technology on “High tech Jaggery” preparation | Contacted concerned scientist and received assurance that technology on High tech Jaggery will be given to KVKs once it is standardized, from ZARS, VC farm, Mandya |
| 7. | Popularization of Maize composite variety, NAC-6004 | FLD was conducted in 5 ha. Planned for 10 ha (NAC- 6004) and 20 ha (NAH -2049) this season. |
| 8. | Popularization of Rice variety MASS for aerobic rice cultivation | Conducted FLD on aerobic rice during 2007-08. Got mixed opinion from the farmers. Planned for 1 ac demonstration in our instructional farm this season. |
| 9. | Encouragement of minor millet cultivation in black cotton soils | Planned for FLD (Ragi and Navane) Kharif 2008-09 in Jagalur and Harapanahalli taluks. |
| 10. | Give emphasis on precision farming and formation of commodity groups | Planned to form commodity groups in vegetable during 2008-09 |
| 11. | Concentrate on control measures for mites, thrips and scale insects in Arecanut. | Three awareness campaigns have been conducted. Made Scientific field visits and provided advisory services to 25 farm families. |
| 12. | To conduct demonstration on organic farming | Vocational training programme for Farm women SHG members of SGSY beneficiaries. Made arrangements for 20 farmers to attend Savayava Krishi Gosti during Taralabalu Hunnime at Holalkere. Conducted two organic fish culture vocational training programmes |
| 13. | To conduct demonstrations on natural pest control methods in rice cultivation | Conducted FLD on natural pest control methods in rice cultivation (demonstrated use of traps and bird perches) |
| 14. | To conduct demonstration on intercropping and green mulching in plantation crops | Four lectures delivered on intercropping and green mulching (Diancha, Sunhemp and Mimosa) in Arecanut and Coconut. French bean as an intercrop in Arecanut was demonstrated. |
| 15. | Integrated Farming System | Conducted two training programmes in IFS with aquaculture as an integral part. Made exposure visits for farmers to Bavikere |
| 16. | Woolly aphid management in sugarcane | Woolly aphid resistant variety CO VC - 2003 – 165 is being cultivated for seed production both in KVK and farmers’ field. |
| 17. | Crop waste management (Sugarcane trash recycling) | Sugarcane trash is being recycled in our KVK farm. Conducted one on campus training programme on Sugarcane trash recycling for farm women SHG members. |
| 18. | Improved banana cultivation | Made Scientific Field Visits to 25 plots and created awareness on improved banana cultivation practices. Conducted method demonstration on stem injection to control pseudo stem weevil in banana. |
| 19. | To utilize AIR and TV as media for wide publicity of KVK activities to farmers of remote area | Given 11 radio and 06 TV programmes. |
| 20. | To arrange exposure visits to the successful progressive farmers’ fields | Four exposure visits were arranged to Progressive farmers fields viz., Koppal, Thurchghatta, Kallalli, Pillanagere |
| 21. | Interaction with other KVK scientists | Interacted with Scientists of Chitradurga, Shimoga, Hassan, Mysore, Gadag, Managalore, Bangalore, Belgaum, Chikkamagalore, Dharwad, Mandya and Tumkur KVKs. |

SAC meeting Proceedings:

The meeting was presided by His Holiness Sri Taralabalu Jagadguru and President of TRDF, Dr Shivamurthy Shivacharya Mahaswamiji.

Members Present:

1. Dr. G. Eshwarappa, Director of Extension, UAS, Bangalore
2. Dr. S. Prabhukumar, Zonal Coordinator, Zone VIII Bangalore
3. Dr. Ramaswamy G.R, A.D.R., ZARS, Shimoga
4. Smt. Manjula, ADA, Representative of Joint Director of Agriculture, Davanagere
5. Sri Veerabhadraswamy Representative of Deputy Director of Horticulture, Davanagere
6. Dr. H.S. Jayanna, Deputy Director (AH&VS), Davanagere
7. Dr. M. Mahanteshappa, Deputy Director, Soil Conservation (DWDO), Davanagere
8. Sri. Gopal Naik, Deputy conservator of Forest (Social Forestry), Davanagere
9. Sri A.M. Siddaiah, Deputy Director, Sericulture, Davanagere
10. Smt. Surekha, Representative of Deputy Director, Women & Child Welfare Department, Davanagere
11. Sri Ramadagi, Programme Exécutive, AIR, Chitradurga
12. Sri. M.K. Renukarya, Small Farmer, Kallahalli, Harapanahalli Tq., Davanagere
13. Sri. S. Basavarajappa, Progressive, Big Farmer, Turchagatta, Davanagere Tq.
14. Smt. Rejeshwari Eshwarappa, Farm women, Kandagal, Davanagere
15. Smt. Devika Prakash, Farm Women, President of SHGs, Ramagondanahalli, Davanagere
16. Sri. S.G. Kudremoti, Assist. General Manager, NABARD, Vidyanagar, Davanagere
17. Dr. Sadananda Holla, Head, Krishiranga, AIR, Bhadravathi
18. Sri. K.M. Kotreshappa, President of Zilla Krishika Samaj, Davanagere
19. Sri. G. Hanumanthappa, Rajya Krishika Samaj, State Rep., Davanagere
20. Sri K.M. Devendrappa, Bharathiya Krishik Samaj Chief Secretary, Davanagere
21. Dr. T.N. Devaraja, Member Secretary of SAC, Programme Coordinantor, Taralabalu KVK, Davanagere

Programme Coordinator of Taralabalu KVK Dr. Devaraja T.N. presented the progress report before the committee on results of Front Line Demonstrations and On Farm Testing conducted during Kharif (continued part) and Rabi 2006-07 viz., integrated fish polyculture in inland ponds, popularization of sugarcane variety CO-86032, popularization of HYV in groundnut, management of wooly aphid through paired row technique with beans as an intercrop, modified feeding methods in inland pond fish culture and management of micronutrient deficiencies in Rice respectively.

Further, status of FLDs implemented during 2007-08 viz., introduction of new hybrid (NAC – 6004), intercropping and INM in maize, IPM in Rice, brinjal and redgram, aerobic rice cultivation, popularization of HYV in ragi (GPU-28), wooly aphid resistant variety (CO-VC 2003-065) in sugarcane, TLCV resistant variety in tomato (Sankranthi), GPBD- 4 in groundnut, HYV (CO-86032) and wooly aphid management in sugarcane, integrated inland pond aquaculture and production technology in cotton and status of OFTs implemented during Kharif 2007-08, viz., use of COT for micronutrient management in Rice, sugarcane and purple blotch management in onion were presented before the committee.

The total number of trainings conducted in relation to the FLDs and OFTs during the reporting period (April 2007 to September 2007) was 52. The extension activities viz., scientific field visits (103), farmers advisory services (170), method demonstration (61), news paper coverage (66), field day, film shows (24), brochures developed (9), popular articles (5), PRA conducted, World kitchen garden day, Parthenium awareness programme have been conducted. Farm development activities taken up are construction of dairy and sericulture units, fish pond unit, grape unit, ornamental fish unit, vermicompost units and apiculture units, agro-horti-forestry system with drumstick block, pomegranate block, sapota block, different species of forest plants have been established in KVK farm (Kesarivana), tamarind block, arid and minor fruits – jamun, anola, jackfruit have been planted. Finally, budget utilization and financial status of KVK was presented.

Then he presented the Action Plan for the next six months (Rabi / Summer 2007-08) before the committee. On Farm Testing planned are micro nutrient management in Cabbage, Management of early blight in Tomato and management of stem borer in Mango. And Front Line Demonstrations planned are IPM in Cauliflower, INM in Arecanut and Coconut, Popularization of HYV in French bean (Arka Suvida), Popularization of potato variety-Kufri Jyothi, Safe storage of pulses- reducing post harvest losses in pulses, ICM in Sunflower, Groundnut and Bengalgram. Trainings related to OFTs, FLDs and thrust area are planned. He stated that 2007 is a celebration of Silver Jubilee of Tara labalu Rural Development Foundation, Sirigere which was started in 1982 by Tara labalu Jagadguru Dr. Shivamurthy Shivacharya Mahaswamiji.

2) Date : **4th March 2008**

Total No of Members Present: **21**

Major Recommendations of the above SAC which are implemented / to be implemented during 2007-08

| Sl. No | Major recommendations | Action taken |
|--------|--|--|
| 1 | 2 | 3 |
| 1 | Subject Matter Specialist (Horticulture) should be deputed to KVK Coimbatore/Salem to collect the details on Nutritional tonic and bring the same for testing here. | Programme Coordinator and three SMSs (Horticulture, Animal husbandary and Agriculture Extension) have visited KVK Namakal and Dharmapuri to study the ongoing activities in Horticulture discipline. Purchased 20ltr. of Nutritional tonic from TNAU for applying to coconut plants. OFT-assessment has been taken up on the efficacy of Nutritional Tonic during this month (Sept-08) |
| 2 | Write a project proposal for establishment of Vermicompost Units (Vermi Hatcheries) and submit to the Directorate of Bio-Fertilizers, Bangalore. | A project proposal for establishment of vermin hatcheries submitted to the department of Biotechnology, New Delhi And obtained sanction in principle. |
| 3 | KVK staff to help farmers in adopting 'Precision Farming'. Create Precision Farming Association and try to export the produce. | Programme Coordinator and three SMSs (Horticulture, Animal husbandary and Agriculture Extension) visited Dharmapuri KVK to study the demonstration of precision farming. The team visited a farmers' field in Dharmapuri district to study the precision farming in Banana cultivation. The idea of precision farming will be spread to the interested farmers in the district during this year. |
| 4 | To start Farmers Field School (FFS) which is a role model for scientist and farmers interaction. | Started farmers field school on Cotton at Budhihal village of Harapanahalli taluk. |
| 5 | To submit a project proposal on Bio-fertilizer production through the Department of Horticulture for subsidy. (Rs. 25.0 lakh fund is available for "Plant Health Clinic and Disease Forecast Unit establishment".) | Subject Matter Specialist (Horticulture) has discussed with the Department of Horticulture regarding establishment of 'Plant health clinic and disease forecast unit'. A proposal will be prepared and submitted. |
| 6 | To use the Animal Husbandry demo units properly and asked the SMS (Animal Science) and SMS (Horticulture) to visit Namakkal KVK (TANUVAS) for studying the various activities particularly about the demonstration units established there which are being maintained from revolving fund. Namakkal KVK is generating lot of income from Animal Husbandry units and the same can be replicated here. | Programme Coordinator and three SMSs (Horticulture, Animal husbandary and Agriculture Extension) have visited the KVK Namakal (TANUVAS) and studied the AH units especially sheep and goat unit, poultry unit and fodder demo plots. All these demo units will be established in our KVK with in this year. |

| 1 | 2 | 3 |
|---|---|--|
| 7 | Involve the ARS Scientists Kathalagere for demonstrations of KVKs related to Coconut Black Headed Caterpillar (CBHC). | Action plan prepared involving Dr. Thippeswamy (Entomologist) ARS Kathalagere for taking up the demonstration on 'Coconut Black Headed Caterpillar' management and will be implemented in rabi/summer. |
| 8 | Encourage integrated farming system and KVK should work in this direction. | Initiation already taken for implementing sustainable IFS in KVK instructional farm. Already local cows have been purchased for farm facility maintenance. Fish pond, Dairy, Rice cultivation, Vegetable are integrated. |
| 9 | Use coconut waste for Vermicomposting. Coconut husk/fiber contains Lignin which needs to be degraded. KVK, Kasaragod has developed earthworm species for degrading Lignin. Bring this earthworm species, multiply and distribute among farmers. SMS (Agronomy) should take initiation in this regard. | Subject Matter Specialist (Agronomy and Plant Protection) visited Kasaragodu KVK and brought lignin digesting earthworms and started the demonstration in the instructional farm at Kadalivana. |

SAC meeting proceedings : The meeting was presided over by Dr. M.N. Kulakarni, Executive Director, TRDF

Members Present:

1. Dr. G. Eshwarappa, Director of Extension, UAS, Bangalore
2. Dr. S. Prabhukumar, Zonal Coordinator, Zone VIII Bangalore
3. Dr. D. Channa Naik, Professor of Agronomy, A.R.S. Kathalagere, Davanagere
4. Dr. Shivamurthappa, Joint Director of Agriculture, Davanagere
5. Dr. K.M. Parashivamurthy, Deputy Director of Horticulture, Davanagere
6. Sri. M. Mahantheshappa, District Watershed Development Officer, Davanagere
7. Mr. Chandrashekar representative of Deputy Conservator of Forests, Social Forestry, Davanagere
8. Sri. Mallinath Y., Assistant Director, representative of Joint Director of District Industries, Davanagere
9. Sri Ramadagi, Programme Exécutive, AIR, Chitradurga
10. Sri. M.K. Renukaryya, Progressive Small Farmer, Kallahalli, Harapanahalli Tq., Davanagere
11. Sri. S. Basavarajappa, Progressive, Big Farmer, Turchagatta, Davanagere Tq.
12. Smt. Rejeshwari Eshwarappa, Farm women, Kandagal, Davanagere
13. Smt. Devika Prakash, Farm Women, President of SHGs, Ramagondanahalli, Davanagere
14. Dr. Sadananda Holla, Head, Krishiranga, AIR, Bhadravathi
15. Dr. Purandar Lokikere, E-TV, Annadata, Davanagere
16. Dr. T.N. Devaraja, Member Secretary of SAC, Programme Coordinantor, Tara labalu KVK, Davanagere

Special Invitees:

1. Sri. K.P. Basavaraj, Member TRDF, Bangalore
2. Sri. K.M. Kotreshappa, President of Zilla Krishik Samaj, Davanagere
3. Sri. G. Hanumathappa, Rajya Krishika Samaja State Representative, Davanagere
4. Sri. K.M. Devendrappa, Zilla Pradhaan Kaaryadharshi, Bhaarathiya Kissan Sangha, Davanagere

The Programme Coordinator, Dr. Devaraja T.N. presented the progress report of Krishi Vigyan Kendra from October, 2007 to February, 2008 and Action Plan for March 2008 to September 2008.

Discussion began with Action Taken Report of Recommendation Of previous SAC meeting. Dr. Kulkarni, and Dr. Prabhukumar S., Zonal Coordinator suggested to prepare SAC document in Kannada. The Zonal Coordinator suggested bringing 50 packets of Nutritional tonic from KVK, Salem developed by Tamilnadu Agricultural University, Coimbatore and test it farmers field affected by CBHC.

The Dr. Eshwarappa E., Director of Extension suggested to send the Subject Matter Specialist (Horticulture) to Coimbatore/Salem to collect the details on Nutritional tonic and bring the same for testing here. This tonic helps in strengthening the coconut trees.

Dr. Manu Kulkarni has suggested to put a few farmers name in the reports who have successfully demonstrated the KVK technologies.

The Zonal Coordinator informed the Programme Coordinator to quantify the work done while writing the report. The Programme Coordinator informed the floor about selection of 16 villages for future work . Then he also explained about the farmers interest in growing Cotton crop after our interventions in these villages viz. at Budhal, Nandikamba & Anajigere of Harapanahalli Taluk.

The Director of Extension informed to take up more of demonstrations on Aerobic Rice (MASS Rice variety) with tail end farmers. He answered the questions raised by some of the farmers about weed problem in this method of rice cultivation and advised for the application of weedicide .

Dr. Kulkarni, suggested to link up the commodity groups on vegetables to markets like Big Bazar, Reliance fresh etc. He expressed his concern about bringing commodity groups and marketing together for the benefit of farmers.

The Zonal Coordinator suggested the KVK staff to help farmers in adopting 'Precision Farming'. He cited the example of farmers in Dharmapuri and Erode Districts who have been successful in doing this precision Farming. The ZC and Director of Extension suggested to take farmers to exposure visit for adopting the technologies especially, Precision Farming. . The Programme Coordinator has informed the floor about the use of Vermicompost in KVK farms and Front Line Demonstrations citing the examples of few farmers and agreed to arrange exposure visits within Six months.

Dr. Kulkarni informed the floor about importance of organic farming/organic products in foreign countries especially, Denmark, Brazil. Discussion was held regarding obtaining certification for organic products. Dr. Parashivamurthy, Deputy Director of Horticulture gave details for obtaining certification on organic products. He advised to select 50 farmers (50 hectares) from 1-2 villages and make them to grow crops organically, so that department will take the responsibility for certification.

Mr. Devendrappa K.M., Progressive farmer told that organic farmers association has been created in the district and henceforth we are taking up the responsibility of certification of agricultural produces. The Deputy Director (Horticulture) agreed to provide funds for this purpose.

The Deputy Director of Horticulture informed to the floor regarding the schemes available in the department. In that he suggested to create shade for Vermiculture units especially to protect from sunlight and rain water. For this purpose Rs. 30,000/- subsidy grants can be utilized. He informed the floor that already 200 farmers in the district are given funds for establishment of Vermicompost Units. Deputy Director (Horticulture) informed that subsidy is available for those who are constructing Bio digester.

The Director of Extension suggested to write a project proposal for establishment of Vermicompost Units (Vermi Hatcheries) and submit to the Directorate of Bio-Fertilizer Bangalore. Each KVK will be given Rs. 1.5 lakhs grants for this purpose, he added.

Dr. Kulkarni, who had presided the meeting told the KVK staff to collect "Hand Book" available in the department to know the different schemes for farmers and write proposals to get the same. Now-a-days all farmers are showing interest in organic farming and there is a future for this for another 50 years.

Mr. K.P. Basavaraj, informed the KVK staff to follow up the suggestions made by different members especially on schemes and projects available. And he also suggested to present the action taken in this matter in the next SAC meeting.

Followed by this discussion The Programme Coordinator presented the Action Plan of KVK for next six months and invited suggestions from Members.

Dr. Kulkarni, suggested to hold regular "Farmer-Scientist Interaction" meetings and develop a good rapport with the farmers.

K.P. Basavaraj enquired about NFDB Inland Fish Farming Training Programmes - Whether farmers are really practicing and doing the project of their own? The Programme Coordinator explained to the floor about the impact of recently conducted 2 Vocational Training Programmes on Inland Fish Farming.

The Zonal Coordinator and the Director of Extension remarked about FLD results. While giving results apart from yield parameters, other parameters are also to be reflected. The Zonal Coordinator suggested to put data on seed rate and other attributes of HYV Ragi variety of GPU-28 and also to put a table showing incidence of TLCV in Tomato both in demo and local check. While giving results both income and yield parameters are to be properly recorded. The Deputy Director (Hort.) informed about the availability of Rs. 25,000/- subsidy for raised bed nursery method and 25-30 % for seedling nursery.

Mr. Basavanagowda M.G. SMS (Horticulture) explained about field days conducted in different villages in Tomato (Devarahalli, Channagiri Tq) and Onion (Arundi, Honnali Tq).

Mr. Mallikarjuna B.O. SMS (Agronomy) explained about Groundnut (GPBD-4) FLD conducted at Mallenahalli. He also explained about Field Days Conducted on Bengalgram (Bheemanare), Hybrid Rice and Ragi (Kurki), Groundnut (Alur & Mallenahalli), Hybrid Sunflower (Budhihal) and Bt Cotton (Budhihal and Nandikamba).

The Director Extension suggested to go for impact study on Arundi (Onion) at Honnali and make it a success story.

DD (Horticulture) suggested to take up more number of awareness programme on onion in Jagalur Taluk. Regarding Purple Blotch Disease Management in Onion, the DE suggested to take large scale demos and adopt 'Seed Village Concept' for seed material in Jagalur taluk.

The DE suggested to introduce GPBD-4 variety Groundnut to Davanagere District with seed village concept. A farmer from Mallenahalli enquired about using the grown seeds for the immediate next season. It can be used the DE said. Mr. Renukarya, informed the floor about his recent visit to FLD Groundnut plot at Mallenahalli, in Davanagere Taluk along with Dr. Kulkarni and KVK Scientists.

The Director of Extension suggested to attend the ZARS meetings to collect latest information on technologies. DE suggested to grow Maize Hybrid (NAH-2049) and compare with other private Hybrids. It is a very useful meeting for KVK activities he said. If the Programme Coordinator is not available on that day, SMSs may be deputed for the meeting, he informed.

The Director of Extension suggested to take up Integrated Crop Management for cotton crop under Cotton Mini Mission Scheme. He also suggested to send a proposal on Farmer Field School (FFS) to the Zonal Coordinator which helps both farmer and scientist to learn things in a better way.

Mr. K.P. Basavaraja, suggested to give more importance to the TV/Radio interviews of farmers. This will really boost the confidence of farmers confidence he said.

The Zonal Coordinator enquired the Programme Coordinator about status of various Demo Units. He enquired about Sericulture Demo Unit in particular. He suggested to search for Sericulture farmers and go for Chawki rearing centre. Some of the farmers expressed the labour problems involved in Sericulture activities. The Director, TRDF after hearing the arguments from farmers suggested the Programme Coordinator to discuss with the Zonal Coordinator separately for better utilization of the building.

The ZC suggested to use the Animal Husbandry Demo Units properly and asked the SMS (Animal Science) and SMS (Horticulture) to visit Namakkal KVK (TNUVAS) for studying the various activities particularly of demo units. He was emphasizing on hygienic backyard poultry birds rearing and Dairy/Goat/Sheep/Fish farming/Nursery techniques. Namakkal KVK is generating lot of income from Animal Husbandry Units and same can be replicate here he added.

Regarding in TKVK, Davanagere use of Banana special to combat deficiency of micronutrient, Sri. Renukarya suggested to use organic mineral source along with Banana Special and he also suggested to avoid selection of suckers from diseased plot for controlling of Panama disease. The DD (Horticulture) asked to use Trichoderma for controlling the Panama disease through seed treatment. The Zonal Coordinator suggested to use the crop name for FLD title than writing it as other than 'oil seeds and pulses'.

Discussion was held regarding the use of composite variety of Maize. The DE suggested to popularize NAH-2079 instead of composite variety and compare with the existing hybrid varieties. The DE informed about release of NAH-1137 during the recently concluded ZARS meeting. This variety is yielding 15% more than what the private hybrids and suitable for fodder purpose because it remains green for more than 15 days from the date of harvest.

The DE regarding cultivation of HYV Rice BR-2635 suggested to collect farmers opinion and then take Demos, if they are interested. He informed to use Tanu Rice (Small Rice) variety which is giving a good result.

The DE encouraged the planned FLD on Navane (RS-118) variety and other minor millets in Jagalur taluk.

Mr. Renukarya suggested to go for intercrop in paired row of planting Sugarcane especially with vegetable crop. Paired row technology will avoid wooly aphids problem to a larger extent and intercropping will generate additional income and indirectly helps improving soil fertility. In addition to this discussion DE suggested to go for wooly aphid resistant variety.

The DE instructed the ARS Kathalagere Scientists to involve in Demos of KVKs related to Coconut Black Headed Caterpillar (CBHC). Regarding Drudgery reducing equipments the DE suggested the KVK scientist to study the problems faced by the farmers in using Agricultural implements and get the feed back.

The Zonal Coordinator informed to maintain the Mushroom Demo Unit in a proper way i.e. in a separate building. He has suggested to take up Kitchen Gardening in KVK farm as demo. A model layout for Kitchen Gardening is available from UAS (B) and the same can be collected the information from Dr. Geetha, Farmers Training Institute, Bangalore, DE said.

The DE and Mr. Renukarya both suggested to popularize both Giriraja and Girirani in backyard.

The DE said that KVK can grow different seeds especially Groundnut and can give it to National Seeds Project. The DE has suggested to use Sunflower hybrid (KBSH-53) released yesterday in ZARS meeting at Babur, Chitradurga for future demos. Redgram (BRG-2) can be used for FLD during late Kharif.

Mr. K.P.Basavaraja, suggested to include training programmes on vegetables grading in our Action Plan for 2008-09. DD (Horticulture) informed to collect the Action Plan available in the department.

The Zonal Coordinator asked the Programme Coordinator to submit proposals for civil works including construction of compound wall immediately with plan and estimate.

The Deputy Director of Horticulture asked the Programme Coordinator to submit a project proposal on Bio-fertilizer production through the Department. Subsidy is available for this programme implementation he said. He also said Rs. 25.0 lakh fund is available for "Plant Health Clinic and Disease Forecast Unit Establishment". Dr. Kulkarni asked the Programme Coordinator to meet DD (Hort.) separately and discuss about different projects available for submission by KVK.

Mr. Hanumanthappa G., Rajya Krishika Samaja State Representative, Davanagere, informed the floor that farmers are cutting coconut plants not only due to disease/pest problem but because they are interested in Arecanut Plantation. Horticulture Department at Honnali has to do lot more for farmers by implementing National Horticulture Mission Schemes effectively he said.

The Zonal Coordinator suggested to start Farmers Field School (FFS) which is a role model for scientist and farmers interaction. This can be done for Bengal gram crop in the coming season.

Mr. Ramadgi, AIR, Chitradurga has made the following remarks.

- Instead of 10% yield increase, farmers will be more benefited with 10% reduction in cost of cultivation.
- Scientists are recommending both organic and inorganic farming. This is misleading the farmers.
- Multiple crops in Cotton have avoided more problems. This is due to symbiotic relation existing among crops. This information can come in package of practice.
- Farmers with 2-3 hectare are to be given emphasis for technology demonstration.
- Select 10 farmers and give emphasis on 'Integrated Farming'. All line Department should work in this direction for helping farmer.
- Use local poultry birds for backyard.
- Grow teak and silver oak plants wherever possible.

Smt. Devika Prakash acknowledged the benefits she had taken from KVK especially Soil Testing, Maize and Ragi food products preparation. She stressed the line department officials to take similar interest for betterment of farmer.

She expressed that farmers will show interest in any new and useful technology only if it comes from Scientists/Officers. They may not accept or show similar interest if it is said by another farmer. Through this bounded contradictory to the popular belief of farmer trusts another farmer better, however her experience was expressed in her own words.

The Zonal Coordinator in his speech given the following suggestions for improved activities in KVK:

- At present 558 KVKs are functioning in India. Government of India is pouring lot of money (2200 crores) on KVKs for better working system. Suggested to improve the quality of work by working at micro levels.
- While working with mandates find out which one is giving more income. Measure not the yield but the net income per acre. Farmer should be able to get Rs. 1 lakh/acre.
- Scientists in KVK should demonstrate good technologies for which money is not the constraint, but they have to put extra efforts for doing the same.
- There are 74 KVKs under Zone-VIII with different Agro climatic conditions. Each KVK is having its own strength and use that strength for development.
- KVK scientist should perceive the farmers problems properly for developing technologies.
- KVK can replicate the technology of transplanting Red gram seedlings as done in KVK Gulbarga/Bidar.

Remarks on Presentation by ZC:

- ATR on recommended is commendable but need quantification.
- Use coconut waste for Vermicomposting. Coconut husk/fiber contains Lignin which needs to be degraded. KVK Kasaragoud has developed earthworm species for degrading Lignin. Bring this earthworm species, multiply and distribute among farmers. SMS (Agronomy) should take initiation in this regard.
- Give preference to Precision Farming. Use the interested farmers in the vicinity for this purpose. eg., Prabhakar, Kurki village for vegetable marketing.
- The quote 'Plough to Plate' instead of 'Lab to Land' suggesting to work towards marketing issues.
- Create Precision Farming Association and try to export the produce eg., Banana Federation and Mushroom Commodity Group in Tamil Nadu.
- Have one portable Hatchery for Fish Farming.
- The KVK works should be measurable. Always analyze the Input-Output-Outcome-Impact as indicator for quality work
- Whenever you are attending to a problem first of all define the problem based on the data i.e., percentage of incidence existing. Then after the demo is over record the percentage of reduction in the incidence.
- Always work with objectives. Then quantify the work in progress report.
- Sustainability of KVK staff should be taken care of for quality working.

Remarks from Dr. Eshwarappa E., Director of Extension

- Agriculture is not an easy job. Youths are loosing interest and have faced many problems in increasing the productivity. Agro processing units are need of the hour they should operate both in district and taluk level, particularly for Maize and encourage youths to take up such entrepreneurship.
- ATMA project has come to Davanagere district and is going to help in commodity group formation. eg., milk society (APCOS).
- Always farmers and scientists should interact for developing technologies and this is very important.
- Always use indigenous technologies which sustains for long time with low cost.
- Encourage integrated farming system and work in that direction.
- Livestock population is coming down gradually. Boost the animal husbandry operations which are giving good income.
- Self help Groups are only saving money. This is not a good trend but they have to invest money for productive purpose. Viz. Commodity group formation.

Presidential Remarks

- He gave example of Amul (Anand Milk Union Ltd.) which is world wide famous for its products and expressed the opinion that a similar type of exclusive programme should be done from KVK.
- KVK work is a team work. Understand the concept and work better.

2. DETAILS OF DISTRICT

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

| S. No | Farming system/enterprise |
|-------|---|
| 1 | Rainfed : Ragi, Maize, Sorghum, Minor millets, Red gram, Black gram, Green gram, Bengal gram, Groundnut, Sunflower, Coconut, Mango, Cotton, Onion |
| 2 | Irrigation : (33%) Flood irrigation: Rice, Sugarcane, Arecanut, Vegetables Drip irrigation : Arecanut, Coconut, Pomegranate, Papaya, Sapota, Betel vine |
| 3 | Enterprise: Poultry, Fishery, Dairy, Sericulture, vermicomposting |

Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

The TaraLabalu Krishi Vigyan Kendra is situated in Davanagere district. The district occupies a total geographical area of 5913.4 sq. km. It is spread over 6 taluks, 35 hoblies and 232 gram panchayaths. According to 2001 censuses, the district comprises total population is 17,90,952, out of which 9,17,705 are male and 8,73,247 are female. The district is primarily agrarian in character and more than 75% of its population depending directly / indirectly on agriculture for their livelihood.

Davanagere district is at center of the state and lies in between latitude of the 75⁰.30' and 76⁰.30' and longitude of 13⁰.45' and 14⁰.50'. The average rainfall of the district is 644 mm. The variety of soil is medium to deep black and red sandy loam. The district is essentially Kharif region and Rabi crops will be taken up with the help of irrigation from Bhadra canal. The district comprises of three agro climatic zones of Karnataka as below.

2.2 Description of Agro-climatic Zone and major agro ecological situation (based on soil and topography) :

| S. No | Agro-climatic Zone | Characteristics |
|-------|---------------------------------------|---|
| 1 | Northern Dry Zone (Zone III) | The zone comprises Harapanahalli Tq. Major soil types of the zone are black and red soils. The main crops growing in the zone are Ragi, Maize, Jowar, Onion, Chilli, Sunflower and Minner millets, Coconut, Mango and Pomegranate. |
| 2 | Central Dry Zone (Zone IV) | Jagalur, Harihara and Davanagere Taluks come under Zone IV. We find red sandy soil mixed with clayey soil land patches of black soil in the zone. Major crops include Maize, Rice, Jowar, Sunflower, Sugarcane, Ragi, Minor millets, Vegetables, Coconut, Arecanut, Beetlevine, Groundnut, and Pomegranate. |
| 3 | Southern transitional Zone (Zone VII) | Southern transitional zone includes Channagiri and Honnali taluks. The dominating soil types found are red sandy soil and black cotton soil. Major crops growing the zone are Maize, Rice, Ragi, Cotton, Chilli, Jowar, Groundnut, Arecanut, Coconut, Mango and other Commercial crops. |

| S. No | Agro ecological situation | Characteristics |
|-------|----------------------------|---|
| 1 | Southern Plateau and Hills | Typical semi-arid zone; About 80 % of the area falls under rainfed farming; Cropping intensity is very low. Soils are shallow and medium, loamy red, Major crops are Rice, maize, sugarcane, Arecanut, coconut and millets. |

2.3 Soil types

| S. No | Soil type | Characteristics | Area in ha |
|--------------|---|--|------------------|
| 1 | Red Sandy Soil (Harihara, Channagiri, Jagalur, Davanagere Tq.) | Low water holding capacity Neutral pH Low nitrogen content Medium in Phosphorus and Potash | 1, 26,000 |
| 2 | Deep to Medium Deep Black Soil (Jagalur, Davanagere, Harapanahalli) | High water holding capacity Neutral to Alkaline pH Medium in nitrogen and Phosphorus High Potassium | 54,000 |
| 3 | Mixed Red and Black Soil (Honnali, Jagalur, Harapanahalli) | Medium water holding capacity Neutral pH Medium in nitrogen, Phosphorus and Potassium content | 1, 62,000 |
| 4 | Sandy Loam Soil (Harapanahalli, Davanagere) | Poor water holding capacity Neutral pH Deficient in Nitrogen, Phosphorus and Potassium | 18,000 |
| Total | | | 3, 60,000 |

2.4. Area, Production and Productivity of major Field crops cultivated in the district (2007-08)

| S. No | Crop | Area (ha) | | Production (t) | | Productivity (kg/ha) | |
|------------|-------------------------|---------------|--------------|-----------------|--------------|----------------------|------------|
| | | Kharif | Rabi | Kharif | Rabi | Kharif | Rabi |
| I | CEREALS | | | | | | |
| 1 | Rice | 17243 | 0 | 89663 | 0 | 5200 | 0 |
| 2 | Jowar | 26896 | 5739 | 49957 | 4373 | 1857 | 762 |
| 3 | Bajra | 1019 | 0 | 713 | 0 | 700 | 0 |
| 4 | Maize | 199228 | 269 | 792811 | 903 | 3979 | 3358 |
| 5 | Ragi | 15152 | 183 | 22728 | 220 | 1500 | 1200 |
| 6 | Wheat | 0 | 527 | 0 | 458 | 0 | 869 |
| 7 | Navane | 695 | 0 | 347 | 0 | 499 | 0 |
| | Save | 300 | 0 | 180 | 0 | 600 | 0 |
| | Total Cereals | 260533 | 6718 | 956398.6 | 5954 | 3671 | 886 |
| II | PULSES | | | | | | |
| 1 | Redgram | 8906 | 0 | 8913 | 0 | 1001 | 0 |
| 2 | Blackgram | 125 | 0 | 33 | 0 | 264 | 0 |
| 3 | Horsegram | 1065 | 3591 | 905 | 2431 | 850 | 677 |
| 4 | Greengram | 2124 | 0 | 955 | 0 | 450 | 0 |
| 5 | Avare | 1705 | 50 | 682 | 21 | 400 | 416 |
| 6 | Cowpea | 868 | 1476 | 373 | 445 | 430 | 301 |
| 7 | Bengalgram | 0 | 3339 | 0 | 1170 | 0 | 350 |
| | Total Pulses | 802 | 8456 | 11861 | 4066 | 802 | 481 |
| | Total Food crops | 3517 | 15174 | 968259.6 | 10020 | 3517 | 660 |
| III | OIL SEEDS | | | | | | |
| 1 | Groundnut | 15743 | 0 | 14963 | 0 | 950 | 0 |
| 2 | Castor | 794 | 0 | 749 | 0 | 943 | 0 |
| 3 | Sesamum | 1810 | 0 | 1357 | 0 | 750 | 0 |
| 4 | Linseed | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Soybean | 125 | 0 | 112 | 0 | 896 | 0 |
| 6 | Nizor | 659 | 0 | 195 | 0 | 296 | 0 |
| 7 | Mustard | 180 | 0 | 39 | 0 | 217 | 0 |
| 8 | Sunflower | 9063 | 4948 | 9213 | 2446 | 1017 | 494 |
| 9 | Safflower | 0 | 400 | 0 | 178 | 0 | 444 |
| | Total | 28374 | 5348 | 26628 | 2624 | 938 | 491 |
| IV | COMMERCIAL CROP | | | | | | |
| 1 | Cotton | 4825 | 1948 | 5373 | 2063 | 189 | 180 |
| 2 | Sugarcane | 7999 | 1608 | 919885 | 176880 | 115 | 110 |
| 3 | Tobacco | 225 | 254 | 123 | 166 | 547 | 652 |
| | Total | 13049 | 3810 | -- | -- | -- | -- |
| | GRAND TOTAL | 316749 | 24332 | -- | -- | -- | -- |

Source : Department of Agriculture, Davanagere.

AREA UNDER HORTICULTURE CROPS IN THE DISTRICT (2007-08)

| Crops | Area (in hectares) | Production (in tons) | Yield (tons/hectare) |
|--------------------------|---------------------------|-----------------------------|-----------------------------|
| Fruit Crops | | | |
| Mango | 2748.00 | 27040.00 | 9.84 |
| Banana | 2167.20 | 60075.00 | 27.72 |
| Lemon | 53.20 | 1252.00 | 23.53 |
| Sweet orange | 519.00 | 9411.00 | 18.13 |
| Guava | 16.00 | 335.00 | 20.94 |
| Sapota | 851.10 | 8898.00 | 10.45 |
| Pomegranate | 194.10 | 2101.00 | 10.82 |
| Papaya | 251.00 | 20160.00 | 80.32 |
| Fig | 5 | 62.50 | 12.50 |
| Vegetable Crops | | | |
| Tomato | 1914.20 | 47270.00 | 24.69 |
| Brinjal | 549.40 | 13735.00 | 25.00 |
| Sweet potato | 16.00 | 208.00 | 13.00 |
| Onion | 3851.10 | 77022.00 | 20.00 |
| Beans | 125.80 | 1333.00 | 10.60 |
| Green chillis | 1255.2 | 13287.80 | 10.59 |
| Cabbage | 27.4 | 602.8 | 22 |
| Knol-Khol | 2.00 | 4.00 | 2.00 |
| Cauli flower | 10.00 | 180.00 | 18.00 |
| Bhendi | 333.80 | 2580.40 | 7.73 |
| Radish | 100.40 | 1084.80 | 10.80 |
| Beetroot | 19.10 | 343.80 | 18.00 |
| Carrot | 2.80 | 56.00 | 20.00 |
| Capsium | 18.80 | 282.00 | 15.00 |
| Cluster bean | 11.20 | 78.40 | 7.00 |
| Leafy Vegetables | | | |
| Menthi | 10.40 | 32.00 | 3.08 |
| Palak | 7.00 | 70.00 | 10.00 |
| Amaranthu | 8.10 | 162.00 | 20.00 |
| Curry leaves | 25.20 | 180.80 | 7.17 |
| Ground Vegetables | | | |
| Ash gourol | 2.80 | 70.00 | 25.00 |
| Snake gourol | 8.00 | 132.50 | 16.56 |
| Bitter gourol | 55.20 | 432.10 | 7.83 |
| Ridge gourol | 63.00 | 504.00 | 8.00 |
| Pumpkin | 56.20 | 1656.00 | 29.47 |
| Cucumber | 223.00 | 3423.50 | 15.35 |
| Little gourol | 1.40 | 53.20 | 38.00 |
| Gherkint | 78.00 | 1.717.50 | 22.02 |
| Spice Crops | | | |
| Pepper | 13.00 | 3.25 | 0.25 |
| Cardamom | 1.00 | 0.06 | 0.06 |
| Ginger | 38.00 | 410.00 | 10.70 |
| Tamarind | 143.80 | 717.50 | 4.99 |
| Turmeric | 16.40 | 124.90 | 7.62 |
| Garlic | 34.00 | 248.00 | 7.29 |
| Coriander | 32.00 | 46.50 | 1.45 |
| Vanilla | 77.00 | 139.40 | 1.81 |

| Garden/Plantation Crops | | | |
|--------------------------------|----------|----------|---------|
| Coconut | 17321.00 | 1990.14 | 0.11 |
| Arecanut | 25232.00 | 33202.90 | 1.32 |
| Beetelvine | 1068.30 | 22318.50 | 20.89 |
| Cocoa | 81.40 | 46.34 | 0.57 |
| Oil Palm | 72.00 | 804.00 | 11.17 |
| Cashew | 22.00 | 44.00 | 2.00 |
| Commercial Flowers | | | |
| Aster | 22.00 | 220.00 | 10.00 |
| Crossandra | 54.80 | 274.00 | 5.00 |
| Marigold | 304.40 | 3042.00 | 9.99 |
| Jasmine | 255.44 | 345.70 | 2408.90 |
| Chrysanthamum | 500.00 | 8700.00 | 15.00 |
| Rose | 43.20 | 105.40 | 2.44 |

Source: Department of Horticulture, Davanagere.

2.5. Weather data

| Month | Rainfall (mm) | Temperature °C | | Relative Humidity (%) |
|---------------------|---------------|----------------|---------|-----------------------|
| | | Maximum | Minimum | |
| October 2007 | 179.8 | 32.0 | 20.0 | 77.7 |
| November | 9.0 | 31.0 | 22.0 | 83.5 |
| December | 4.8 | 28.0 | 21.0 | 86.0 |
| January 2008 | 1.0 | 34.3 | 24.0 | 78.0 |
| February | 0.9 | 37.0 | 23.0 | 70.0 |
| March | 95.5 | 36.0 | 26.0 | 61.0 |
| April | 23.4 | 36.0 | 27.0 | 73.9 |
| May | 65.6 | 32.0 | 23.0 | 76.1 |
| June | 67.1 | 31.0 | 25.0 | 79.8 |
| July | 65.1 | 31.5 | 22.0 | 81.3 |
| August | 107.2 | 30.0 | 20.0 | 79.6 |
| September | 70.7 | 30.0 | 22.0 | 82.3 |
| Total | 644.7 | | | |

Source : Department of Agriculture, Davanagere

2.6 Production and productivity of livestock, Poultry, Fisheries etc. in the district

| Category | Population | Production | Productivity |
|----------------|------------|------------|------------------|
| Cattle | | | |
| Crossbred | 292231 | -- | 5-6 lts milk/day |
| Indigenous | 57139 | -- | -- |
| Buffalo | 219207 | -- | -- |
| Sheep | | | |
| Crossbred | 120 | -- | -- |
| Indigenous | 204786 | -- | -- |
| Goats | 112874 | -- | -- |
| Pigs | | | |
| Crossbred | -- | -- | -- |
| Indigenous | 3100 | -- | -- |
| Rabbits | 102 | -- | -- |
| Poultry | 1520386 | -- | -- |

Source : Department of AH and VS, Davanagere

| Category | Area | Production | Productivity |
|----------|------|------------|--------------|
| Fish | -- | 5682.32 MT | 500 kg/h |

2.7 Details of Operational area / Villages

| Sl. No. | Taluks | Name of the block | Name of the villages | Major crops & enterprises being practiced | Major problems identified | Identified Thrust Areas |
|---------|------------|-------------------|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | Davanagere | Block - 1 | Haluvarthi Mellekatte Ramagondanahalli Kurki, Kandagal, Mallenahalli, Yelebethur, Hadadi | Ground nut | - Continuous use of local variety - Collar rot, root rot and wilting - Tikka - No gypsum application - More energy, labour and time consumption for stripping and shelling | - HY and resistant variety - Seed treatment - Chemical control - Gypsum application - Groundnut stripper and decorticator |
| | | | | Ragi, Maize Redgram | Local Varieties High seed rate Erratic rainfall Drudgery of farm women in farm & house hold Loss of grains/produce due to Poor storage Wilting and pod borer | Inter cropping, HYV, Recommended seed rate Intercropping Drudgery reducing measures in farm & house hold Safe storage measures HYV, IPM |
| | | | | Value addition | Poor nutrition, no value addition | Family nutrition management, promotion of nutritional kitchen garden, post harvest technology to add value to the farm produce |
| | | | | Sugarcane | Woolly aphid, narrow spacing, improper water management, trash burning, micronutrient deficiency, incidence of red rot and use of low yielding varieties Scarcity of water, use of low yielding varieties, micronutrient deficiency, Severe infestation of BPH | Integrated management of woolly aphid, management of red rot, recycling of crop wastes & nutrient management, paired row and popularization of resistant variety |
| | | | | Rice | | Aerobic rice cultivation, Popularization and IPM in KRH-2 Nutrient management |
| | | | | Livestock Rearing | - Low milk production / low quality milk production - Infertility problems in cattle - Foot and mouth disease and mastitis | - Feeding and breeding - Disease control |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---------------|-----------|--|------------------------------|--|--|
| 1 | Davanagere | Block - 1 | Haluvarthi Mellekatte Ramagondanahalli Kurki, Kandagal, Mallenahalli, Yelebethur, Hadadi | Soybean | <ul style="list-style-type: none"> - Mono cropping - Poor soil fertility - No value addition | <ul style="list-style-type: none"> - Crop rotation - Pulse crop - Importance of soybean and value added products |
| | | | | Tank fisheries | <ul style="list-style-type: none"> - Low fish production per unit area (0.5 to 0.8 t per ha) - Incomplete technical know-how of aquaculture technology - Lower income per unit area | <ul style="list-style-type: none"> - Sustainable integrated fish farming with polyculture |
| | | | | Drudgery reducing equipments | <ul style="list-style-type: none"> - Energy labour and time consumption | <ul style="list-style-type: none"> - Use of Drudgery reducing implements in ragi, maize, sunflower, Rice, groundnut and vegetables |
| | | | | Nutrition education | <ul style="list-style-type: none"> - Malnutrition among preschoolers and anemia among adolescent girls | <ul style="list-style-type: none"> - Importance nutritious foods for preschoolers and preparation of low cost nutritious mixes - Importance of Iron and other nutrients during adolescent period |
| | | | | Coconut | <ul style="list-style-type: none"> - Higher incidence of BHC and Mites. - Lower productivity | <ul style="list-style-type: none"> - Integrated Crop Management in Coconut - Root feeding with Monocrotophos - Release of parasite (<i>Goniozus nephentidis</i>) |
| | | | | Banana | <ul style="list-style-type: none"> - Lower bunch weight due to improper nutrient management - Psuedostem weevil damage | <ul style="list-style-type: none"> - Integrated Crop Management in Banana - Stem injection |
| | | | | Medicinal and Aromatic crops | <ul style="list-style-type: none"> - Production in few acres | <ul style="list-style-type: none"> - Popularization of important Medicinal and Aromatic crops. |
| 2 | Harapanahalli | Block - 2 | Anajigere, Budihal, Nandikamba | Cotton | <ul style="list-style-type: none"> - No RDF - Sucking pests - Boll worms - Leaf reddening and square drying | <ul style="list-style-type: none"> - Bt Cotton - Seed treatment - Growth regulators - Micronutrient and RDF - Integrated Pest Management |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----|---------------|-----------|--|--|--|---|
| | Harapanahalli | Block - 2 | Anajigere, Budihal, Nandikamba | Sunflower (Kharif) | <ul style="list-style-type: none"> - Genuine seeds - Bud necrosis and BHC - No Micronutrients (Zinc and Boron) - Close Spacing | <ul style="list-style-type: none"> - Authenticated seeds - IPM - Micro nutrient spray - Recommended spacing |
| | | | | Dry land Horticulture | <ul style="list-style-type: none"> - Low water availability - Major area in rain fed | <ul style="list-style-type: none"> • Promotion of fruit crops/ vegetable crops/ flower crops |
| 3. | Channagiri | Block - 3 | Basavapattana Garaga Devarahalli Mugalalli | Arecanut | Button shedding and infestation of mites | Micronutrient management IPM, |
| | | | | Tomato Onion Brinjal French bean Cauliflower Potato | <ul style="list-style-type: none"> Leaf curl Improper nutrient management Improper pest and disease management Heavy incidence of DBM | TLCV sankranti , HYV Arka kalayan, IPM HYV Arka suvida, IPM |
| | | | | Ragi | Improper spacing and nutrient management, pest and diseases | Integrated Crop Management |
| | | | | Coconut | Low yield due to poor nutrient management | IPM, nutrient management |
| | | | | Livestock rearing | <ul style="list-style-type: none"> - Low milk production / low quality milk production - Infertility problems in cattle - Foot and mouth disease and mastitis | <ul style="list-style-type: none"> - Feeding and breeding - Disease control |
| 4 | Harihara | Block -4 | KN Halli Maganahalli J. Kumblur Devarabelekere | Tank fisheries | <ul style="list-style-type: none"> - Low fish production per unit area (0.5 to 0.8 t per ha) - Incomplete technical know-how of aquaculture technology - Lower income per unit area | <ul style="list-style-type: none"> • Sustainable integrated fish farming with polyculture |
| 5 | Honnali | Block – 5 | Arundi Nyamati Honnali | Onion, Vegetables | <ul style="list-style-type: none"> - Purple blotch in Onion - Damping off in vegetable nursery beds | <ul style="list-style-type: none"> • Use of poretrays and raised seed bed method, Use of disease resistant varieties and IPM |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---------|-----------|--|------------------------|---|--|
| 6 | Jagalur | Block - 6 | Chikkabantanahalli, Hoskere, Sokke, Kechenahalli | Onion | - Low productivity due to use of Local Variety(Jagalur local) | - Popularization of HYV Arka kalyan |
| | | | | Dry land Horticulture | - Low water availability - Major area in rainfed | - Promotion of fruit crops/ vegetable crops/ flower crops |
| | | | | Ragi and Minor millets | - Low yield - Local varieties - No bio-fertilizer - No micro nutrient application - No value addition | - High yield varieties - Seed treatment - Micro nutrient application - Value added products of Ragi |
| | | | | Navane | - Low yield - Local varieties - No recommended dose of fertilizer - No micro nutrient application - No value addition | - Improved varieties - Seed treatment - Recommended dose of fertilizer - Value added products of Navane |
| | | | | Livestock rearing | - Low milk production / low quality milk production - Infertility problems in cattle - Foot and mouth disease and mastitis | - Feeding and breeding • Disease control |

2.8 Priority thrust areas

- Integrated Farming System
- Popularization of HYV/ Composite varieties and Integrated Nutrient Management in cereals, pulses and plantation crops
- Insect Pest and Disease Management in Rice, Red gram, Bengal gram, Cotton, Tomato, Brinjal, Arecanut, Coconut, Banana and Sugarcane
- Integrated Crop Management in Sunflower, Groundnut and Cotton
- Soil fertility management through STFR in major crops
- Recycling of crop waste in Sugarcane and Maize
- Popularization of HYV and hybrids of Rice, Ragi, Navane, Groundnut, Sugarcane and Vegetable crops.
- Nursery management in horticulture crops
- Family nutrition management
- Enrichment and value addition to cereals, pulses, vegetables and fruits
- Drudgery reduction for farm women
- Integrated inland fish farming
- Popularization of perennial vegetables and commercial flowers
- Low production performance in dairy animals/small ruminants/poultry birds.
- Under nutrition and disease incidence in live stock
- Poor live stock management practices
- Quality, clean milk production

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities

| OFT | | | | FLD | | | |
|----------------|-------------|-------------------|-------------|----------------|-------------|-------------------|-------------|
| 1 | | | | 2 | | | |
| Number of OFTs | | Number of farmers | | Number of FLDs | | Number of farmers | |
| Targets | Achievement | Targets | Achievement | Targets | Achievement | Targets | Achievement |
| 04 | 04 | 40 | 40 | 21 | 21 | 239 | 239 |

| Training | | | | Extension Activities | | | |
|-------------------|-------------|------------------------|-------------|----------------------|-------------|------------------------|-------------|
| 3 | | | | 4 | | | |
| Number of Courses | | Number of Participants | | Number of activities | | Number of participants | |
| Targets | Achievement | Targets | Achievement | Targets | Achievement | Targets | Achievement |
| 85 | 93 | 1700 | 1457 | 775 | 728 | 2600 | 2572 |

| Seed Production (Qtl.) | |
|--|-------------|
| 5 | |
| Target | Achievement |
| Sugarcane COVC-2003 – 165 | : 18 t |
| Sugarcane CO-86032 | : 15t |
| Fish fingerlings (Common carp, Catla, Rohu) | : 25000 no. |
| Ornamental Fishes | : 2500 no. |
| CO-3 fodder cuttings | : 9000 |

3.B1. Abstract of interventions undertaken

| S. No | Thrust area | Crop/ Enterprise | Identified Problem | Interventions | | | | | |
|-------|---------------|------------------|--|--------------------------------------|---------------------|--|--|---|--|
| | | | | Title of OFT if any | Title of FLD if any | Title of Training if any | Title of training for extension personnel if any | Extension activities | Supply of seeds, planting materials etc. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | IPM, IDM, INM | Ragi | Low yield due to use of local varieties | -- | INM | Improved cultivation practices in ragi | -- | Individual meetings Farmers meeting Field visit | GPU-28 seeds Azospirillum |
| 2 | | Rice | No seed treatment BPH, stem borer and blast Indiscriminate use of pesticides | Use of COT as a micronutrient source | IPM | Improved cultivation practices in Rice Role of pheromone traps in IPM | -- | Method demonstration Diagnostic field visit Field day | Funnel traps Carbofuron Tricyclazole Imidacloprid Neem oil |
| 3 | | Maize | Use of local hybrids Erratic rainfall Stem borer | -- | INM | Improved cultivation practices of NAC-6004 Intercropping in maize | -- | Group meetings Diagnostic field visit Field day | NAC-6004 Urea SSP Azospirillum |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|-----------------------------|------------|--|----|------------------------|---|----|--|---|
| 4 | IPM, IDM, INM | Sunflower | No application of MOP No seed treatment Bud necrosis and root rot Poor seed setting | -- | IPM | Seed treatment Integrated crop management IPM | -- | Farmers meeting Method demonstration Diagnostic field visit Field day | KBSH-41 Trichoderma Borax Imidacloprid |
| 5 | | Groundnut | Low yield potential of soils Collor rot, leaf spot, RHHC No gypsum application | -- | ICM | Integrated crop management Seed treatment, role of gypsum | -- | Method demonstration Field day Farmers meeting | GPBD-4 seeds Trichoderma Chloropyriphos |
| 6 | | Redgram | Pod borer and wilt Use of local varieties | -- | IPM | Soil testing and sowing Role of pheromone traps Intercropping ICM | -- | Group meetings Method demonstration Field visit Field day | BRG-1 Pheromone traps HaNPV Chloropyriphos Neem oil |
| 7 | | Bengalgram | Use of local varieties Wilt and pod borer No seed treatment | -- | IPM | Seed treatment ICM IPM | -- | Method demonstration Field visit Field day | A-1 seeds Trichoderma Pheromone traps HaNPV Neem oil Methomyl Quinolphos |
| 8 | PHT | Pulses | Post harvest losses of grains due to insect infestation | -- | Safe storage of pulses | Safe storage of pulses | -- | Group meetings Method demonstration Follow up visits | Air tight containers |
| 9 | HYV, INM, IPM, IDM | Cotton | Square drying Boll worms Sucking pests Leaf reddening | -- | ICM | ICM in Cotton, FFS, Soil sampling Soil sampling and ICM IPM practices Role of micronutrients in cotton Role of pheromone traps in IPM ICM in cotton | -- | Farmers meeting Method demonstration Diagnostic field visit Field day | Bt cotton MRC-6918 RCHB Gaucho Bendi Funnel traps Zimag Planofix Chloropyriphos Neem oil Quinolphos |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|-----------------------------|-------------|--|--|--|---|---|---|---|
| 10 | HYV, INM, IPM, IDM | Sugarcane | Woolly aphid Local varieties | Use of COT as micronu trient source | IPM | Woolly aphid managem ent | -- | Survey Field visit Group discussion | CO-VC-2003- 165 CO-81632 |
| 11 | IFF | Fisheries | Agriculturally unsuitable land area | -- | Integra ted fish farmin g with fruits and vegeta bles | Principles of aquacultur e and sustainable integrated fish farming | Developm ent of fish culture in different water structures | Group discussions Diagnostic survey Method demonstration Field visits | Fish fingerlings Vitamin mineral mixture |
| 12 | HYV, INM, IPM, IDM | Brinjal | Shoot and fruit borer and wilt Indiscriminate use of pesticides | -- | IPM | Installation of pheromone traps Ecofriendl y managem ent of shoot & fruit borer | -- | Farmers meeting Method demonstration Diagnostic field visit Field day | Woto traps Neem oil Profenophos |
| 13 | | Cauliflower | Incidence of diamond back moth | -- | IPM | IPM measures in cauliflower | -- | Group discussion Method demonstration Diagnostic field visit Field day | Mustard seeds DDVP Pongamia soap Spinosad |
| 14 | | Tomato | TLCV incidence | -- | Produc tion technol ogy of TLCV resistan t varietie s., Sankra nti, Nandi, Vaibha v | Production technology of tomato Importanc e of staking and pheromone traps in tomato | -- | Group discussion, Method demonstration, Field visit, Field day | Seeds- Sankranti, Nandi, Vaibhav |
| 15 | | Onion | Purple blotch disease | Purple blotch disease managem ent | Produc tion technol ogy of purple blotch disease resistan t variety Arka Kalyan | Production technology of onion | Production technology of onion | Group discussion, Method demonstration, Field visit, Field day | Seeds – Arka Kalyan Trichoderma |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|-----------------------------|-------------|---|---|--|---|--|--|-------------------------------------|
| 16 | HYV, INM, IPM, IDM | Potato | Lower productivity Late blight disease | -- | Production technology of Kufri Jyothi | Production technology of potato | -- | Group discussion, Method demonstration, Field visit, Field day | Seeds- Kufri Jyothi Dithane-M-45 |
| 17 | | French bean | Low productivity by use of local varieties | -- | Production technology of French bean | Production technology of French bean | -- | Group discussion, Method demonstration, Field visit, Field day | Seeds-Arka Komal |
| 18 | | Cabbage | Low yield due to poor nutrient management | Micronutrient management in cabbage through COT application | -- | Role of micronutrients in cabbage | -- | Group discussion, Method demonstration, Field visit | COT |
| 19 | | Arecanut | Butten shedding Nut drop | -- | Integrated Nutrient Management in arecanut | Production technology of arecanut Integrated Nutrient Management | Integrated Nutrient Management in arecanut | Group discussion, Method demonstration, Field visit, Field day | Fertilizers-MOP and Borax |
| 20 | | Coconut | Nut drop High incidence of BHC and Mites | -- | Integrated Nutrient Management in coconut | Production technology of Coconut Integrated Nutrient Management in coconut | Integrated Nutrient Management in coconut | Group discussion, Method demonstration, Field visit, Field day | Fertilizers-Neem cake and Borax |

3.B2 List of technology assessed during 2007-08

| SI No. | Thematic area | Name of the technology assessed | Area (ha) | No. of trails | Remarks if any |
|--------|-------------------------------|---|-----------|---------------|----------------|
| 1 | Integrated disease management | Purple blotch diseases management in Onion | 01 | 10 | -- |
| 2 | INM | Micronutrient management in Cabbage through COT application | 02 | 10 | --- |
| 3 | INM | Micronutrient management in Paddy through COT application | | 05 | -- |
| 4 | INM | Micronutrient management in Sugarcane through COT application | | 10 | -- |

3.B3 List of technology refined during 2007-08 : NIL**3.C Details of technology used during reporting period :**

| Sl. No | Title of technology | Crop/ Enterprise | Mode of use | | | No. of farmers covered | | | | | |
|--------|---|------------------|-------------|-----|----------|------------------------|--------|-------|----------------|--------|-------|
| | | | OFT | FLD | Training | Other farmers | | | SC/ ST farmers | | |
| | | | | | | Male | Female | Total | Male | Female | Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1 | Integrated crop management | Maize | -- | ☺ | ☺ | 110 | 49 | 159 | 26 | 11 | 37 |
| 2 | Integrated crop management | Ragi | -- | ☺ | ☺ | 63 | 36 | 99 | 29 | 16 | 45 |
| 3 | Integrated pest management | Rice | ☺ | ☺ | ☺ | 79 | 18 | 97 | 35 | 09 | 44 |
| 4 | Integrated pest management | Sugarcane | ☺ | ☺ | ☺ | 34 | 10 | 44 | 09 | 02 | 11 |
| 5 | Integrated pest management | Cotton | -- | ☺ | ☺ | 275 | 23 | 298 | 97 | 16 | 113 |
| 6 | Composite fish culture in inland fish farms using advanced carp fingerlings | Fisheries | -- | ☺ | ☺ | 96 | 68 | 164 | 36 | 08 | 44 |
| 7 | Integrated crop management | Groundnut | -- | ☺ | ☺ | 76 | 13 | 89 | 22 | 05 | 27 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----|--------------------------------|-----------------|----|---|---|----|----|-----|----|----|----|
| 8 | Integrated pest management | Sunflower | -- | ☒ | ☒ | 97 | 10 | 107 | 32 | 12 | 44 |
| 9 | Integrated pest management | Redgram | -- | ☒ | ☒ | 72 | 19 | 91 | 40 | 03 | 43 |
| 10 | Integrated pest management | Bengalgram | -- | ☒ | ☒ | 82 | 13 | 95 | 34 | 10 | 44 |
| 11 | Integrated pest management | Brinjal | -- | ☒ | ☒ | 21 | 03 | 24 | 08 | 01 | 09 |
| 12 | Integrated pest management | Cauliflower | -- | ☒ | ☒ | 13 | -- | 13 | 08 | -- | 08 |
| 13 | TLCV resistant varieties | Tomato | ☒ | ☒ | ☒ | 68 | 21 | 89 | 33 | 09 | 42 |
| 14 | Integrated disease management | Onion | ☒ | ☒ | ☒ | 54 | 02 | 56 | 30 | 02 | 32 |
| 15 | Integrated crop management | French bean | -- | ☒ | ☒ | 53 | 02 | 55 | 27 | -- | 27 |
| 16 | Integrated crop management | Potato | -- | ☒ | ☒ | 21 | 03 | 24 | 10 | 05 | 15 |
| 17 | Integrated nutrient management | Arecanut | -- | ☒ | ☒ | 76 | 33 | 109 | 29 | 07 | 36 |
| 18 | INM & IPM | Coconut | -- | ☒ | ☒ | 97 | 40 | 137 | 27 | 14 | 41 |
| 19 | Integrated crop management | Chilly | -- | ☒ | ☒ | 34 | -- | 34 | -- | -- | -- |
| 20 | Integrated crop management | Banana | -- | ☒ | ☒ | 32 | 02 | 34 | -- | -- | -- |
| 21 | Integrated pest management | Cabbage | -- | ☒ | ☒ | 07 | 01 | 08 | 02 | -- | 02 |
| 22 | Post harvest technology | Redgram & Avare | -- | ☒ | ☒ | 10 | 38 | 48 | 03 | 30 | 33 |
| 23 | Integrated crop management | Same & Navene | -- | ☒ | ☒ | 18 | 04 | 22 | 03 | 02 | 05 |

3.1 Achievements on technologies assessed and refined

A. Results of On Farm Trial

1. Assessment in Onion

| Crop/ enterprise | Farming situation | Problem definition | Title of OFT | No. of trials | Technology Assessed | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---------------------|----------------------|-----------------------------|--------------------------------|---------------------|--|--|---|--|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Onion | Rainfed/ Borewell | Purple blotch disease | Purple blotch management | 10 | Farmers practice: Foliar spray of different fungicides | Incidence of disease, Bulb size & yield | 30% incidence, small to medium 8t/ha | Incidence of disease is less in technology assessed compared to other practices | 40-50% cost reduced due to seed treatment with Trichoderma |
| | | | | | Recommended practice: Foliar spray of Dithane M 45@ 2.5gm/l | | 25% incidence, small to medium 8.65t/ha | | |
| | | | | | Technology assessed: Seed treatment with Trichoderma @4g/kg of seeds Foliar spray of Chlorothalonil @ 2g/l 2 sprays at 15 days interval | | 3% incidence, Medium to large 10.82t/ha | | |

| Any refinement done | Justification for refinement | Technology Assessed / Refined | Production per unit | Net Return (Profit) in Rs. / unit | BC Ratio |
|---|--|---|------------------------|---|-------------|
| 11 | 12 | 13 | 14 | 15 | 16 |
| Seed treatment with Trichoderma @ 4g/kg of seed Foliar spray of Chlorothalonil @ 2g/l | The causal agent Alternaria porii is seed & soil borne. So both Trichoderma & Chlorothalonil are very effective | Technology option : Foliar spray of different fungicides | 8.0t/ha | 14500 | 1.56 |
| | | Technology option : Foliar spray of Dithane M 45@ 2.5gm/l | 8.65t/ha | 20750 | 1.92 |
| | | Technology option : Seed treatment with Trichoderma @4g/kg of seeds Foliar spray of Chlorothalonil @ 2g/l 2 sprays at 15 days interval | 10.82t/ha | 30520 | 2.29 |

2. Assessment in Cabbage

| Crop/ enterprise | Farming situation | Problem definition | Title of OFT | No. of trials | Technology Assessed | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|---------------------|----------------------|-----------------------------|---|---------------------|--|--------------------------------|--|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Cabbage | Irrigated | Micronutrient deficiency | Micronutrient management in Cabbage | 10 | Farmers practice: No micronutrient application | Head weight yield | Head weight : 900 g Yield : 20.9 t | The application of COT supplied the micronutrients required by Cabbage and even given on par yield | Need COT powder in granulated form |
| | | | | | Recommended practice: Recommended NPK | | Head weight : 910 g Yield : 21.0 t | | |
| | | | | | Technology assessed: COT - 0.5 t/ha + Recommended NPK | | Head weight : 876 g Yield : 20.2 t | | |

| Any refinement done | Justification for refinement | Technology Assessed / Refined | Production per unit (t/ha) | Net Return (Profit) in Rs. / unit | BC Ratio |
|---|--|--|-------------------------------|---|-------------|
| 11 | 12 | 13 | 14 | 15 | 16 |
| Application of COT @0.5 t/ha as a source of micronutrient | COT application reduces the symptoms of micronutrients | Farmers practice: No Micronutrient | 20.9 | 33825 | 2.17 |
| | | Recommended practice: Recommended NPK | 23.0 | 45500 | 2.93 |
| | | Technology assessed: COT - 0.5 t/ha + Recommended NPK | 22.1 | 42300 | 2.76 |

3. Assessment in Rice

| Crop/enterprise | Farming situation | Problem definition | Title of OFT | No. of trials | Technology Assessed | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|-----------------|-------------------|--------------------------|---|---------------|---|---|--------------------------------|---|------------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Rice | Irrigated | Micronutrient deficiency | Use of COT for the correction of Micronutrient deficiency in Rice | 5 | Farmers practice: No Micronutrient | Plant height Panicle length Yield | 76.3 cm 20 cm 64.75 q/ha | COT supplied at the micronutrient required by the crop which resulted in healthy growth and higher yield. | Need COT powder in granulated form |
| | | | | | Recommended practice: Zinc sulphate @ 20 kg /ha | 89.4 cm 23.0 cm 85.10 q/ha | | | |
| | | | | | Technology assessed: COT - 0.5 t/ha | 90.5 cm 23.5 cm 90.28 q /ha | | | |

| Any refinement done | Justification for refinement | Technology Assessed / Refined | Production per unit (kg/ha) | Net Return (Profit) in Rs. / ha | BC Ratio |
|--|--|--|-----------------------------|---------------------------------|----------------------|
| 11 | 12 | 13 | 14 | 15 | 16 |
| Application of COT @ 0.5 t/ha instead of Zinc sulphate before transplanting is required. | COT application reduces the symptoms of zinc and also other micronutrients | Farmers practice: No Micronutrient Recommended practice: Zinc sulphate @ 20 kg /ha Technology assessed: COT - 0.5 t/ha | 6475 8510 9028 | 20825 37070 39976 | 1.85 2.64 2.71 |

4. Assessment in Sugarcane

| Crop/enterprise | Farming situation | Problem definition | Title of OFT | No. of trials | Technology Assessed | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer |
|-----------------|-------------------|-----------------------------|--|---------------|---|---------------------------------|---------------------------|-----------------------|--------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Sugarcane | Irrigated | Deficiency of micronutrient | Use of COT for supply of micronutrients in sugarcane | 10 | Farmers practice: Application of complex fertilizers (15:15:15) Recommended practice: Application of RDF (250:75:75 Kg NPK/ha) Technology assessed: Application of RDF (250:75:75 Kg NPK/ha)+ COT - 1 t/ha | Plant height, Cane girth, yield | Crop is not yet harvested | | |

B. Details of each On Farm Trial**Onion**

- 1) **Title of Technology assessed :** Purple blotch disease management in onion
- 2) **Problem Definition :** Low yield due to purple blotch disease
- 3) **Details of technologies selected for assessment/refinement :** Seed treatment with Trichoderma @4 g/kg of seeds
: Foliar spray of Chlorothalonil @ 2 g/l sprays at 15 days interval
- 4) **Source of technology :** IIHR, Bangalore
- 5) **Production system and thematic area :** Rainfed & Disease management
- 6) **Performance of the Technology with performance indicators**
 - a. Size of bulb
 - b. Yield
- 7) **Final recommendation for micro level situation :** Seed treatment with Trichoderma @ 4 g/kg of seeds
- 8) **Constraints identified and feedback for research :** Seed production of disease resistant variety
- 9) **Process of farmers participation and their reaction :**
 - Farmers meeting & trainings
 - Reduces number of sprays
 - Effective management of disease by seed treatment with Trichoderma

Cabbage:

- 1) **Title of Technology assessed :** Micronutrient management in cabbage.
- 2) **Problem Definition :** Nutrient deficiency
- 3) **Details of technologies selected for assessment/refinement :** Application of COT @ 0.5 t/ha + Recommended NPK
- 4) **Source of technology :** UAS, Dharwad
- 5) **Production system and thematic area :** Irrigated and nutrient management
- 6) **Performance of the Technology with performance indicators**
 - a. Head weight
 - b. Yield
- 7) **Final recommendation for micro level situation :** Development of granular formulation of COT
- 8) **Constraints identified and feedback for research :** Non availability of COT at proper time.
- 9) **Process of farmers participation and their reaction :**
 - Farmers meeting & trainings

Cot application gives on per yield with recommended practice

Rice:

- 1) **Title of Technology assessed :** Micronutrient management in Rice
- 2) **Problem Definition :** Nutrient deficiency
- 3) **Details of technologies selected for assessment/refinement :** Application of COT @ 0.5 t/ha
- 4) **Source of technology :** UAS, Dharwad
- 5) **Production system and thematic area :** Irrigated and nutrient management
- 6) **Performance of the Technology with performance indicators**
 - a. Plant height
 - b. Panical length
 - c. yield
- 7) **Final recommendation for micro level situation :** Development of granular formulation of COT
- 8) **Constraints identified and feedback for research :** Non availability of COT
- 9) **Process of farmers participation and their reaction :**
 - Farmers meeting & trainings

Cot application gives higher yield compared recommended practice

3.2 Achievements of Frontline Demonstrations

a. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous years and popularized during 2007-08 and recommended for large scale adoption in the district

| S. No | Thematic Area | Technology demonstrated | Details of popularization methods suggested to the Extension system | Horizontal spread of technology | | |
|-------|--------------------------------|--|---|---------------------------------|----------------|------------|
| | | | | No. of villages | No. of farmers | Area in ha |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. | Fisheries – Inland aquaculture | IFF in inland ponds | -Training to extension officials - Subsidy encouragement - Right type of fish feed availability in proximity | 04 | 15 | 04 |
| 2. | Integrated Crop management | HYV Seed treatment Gypsum application | -Inputs like Trichoderma and Rhizobium easily RSK level -Method demonstration to the SHG members | 04 | 35 | 20 |
| 3. | ICM | ICM in Cotton | -FFS -Training for the extension officers | 05 | 567 | 150 |
| 4. | Insect management | IPM in Sugarcane | -Woolly aphid predators should be available easily | 03 | 28 | 13 |
| 5 | Pest management | IPM in Rice | -Pheromone traps should be available at RSK level -Method demonstration on traps installation | 05 | 62 | 18 |
| 6 | Pest management | IPM in Brinjal | -Woto traps & neem products availability -Training for the extension officers | 02 | 24 | 05 |
| 7 | Integrated Nutrient Management | Integrated Nutrient Management in Arecanut and Coconut | Awareness about role of micronutrients and potash through seminar Method demonstration on method of fertilizer application | 04 | 20 | 35 |
| 8 | Production technology | Production technology of Arka kalyan in Onion | Method demonstration on seed treatment with trichoderma Techniques of seed production through seminar | 02 | 40 | 50 |
| 9 | Production technology | Production technology of Arka Komal in French bean | Production technology of French bean through training Prophylactic plant protection measures through method demonstration | 02 | 10 | 25 |
| 10 | Integrated Nutrient Management | Integrated Nutrient Management in Arecanut and Coconut | Created awareness about role of micronutrients and potash through seminar Method demonstration on method of fertilizer application | 04 | 20 | 35 |
| 11 | Production technology | Production technology of Arka kalyan in Onion | Method demonstration on seed treatment with trichoderma Techniques of seed production through seminar | 02 | 40 | 50 |
| 12 | Production technology | Production technology of Arka Komal in French bean | Production technology of French bean through training Prophylactic Plant protection measures through method demonstration | 02 | 10 | 25 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----|-------------------------|-------------------------------------|--|----|----|----|
| 13 | Post harvest technology | Groundnut decorticator and stripper | - Method demonstration - Availability of equipments at RSK levels | 04 | 77 | -- |

b. Details of FLDs implemented during 2007-08

| Sl. No. | Crop | Them atic area | Technology Demonstrated | Season and year | Area (ha) | | No. of farmers/ demonstration | | | Reasons for shortfall in achievement |
|-------------------------|--------------------|------------------------------|--|----------------------|-----------|--------|-------------------------------|--------|-------|--------------------------------------|
| | | | | | Proposed | Actual | SC/ST | Others | Total | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| CEREALS | | | | | | | | | | |
| 1 | Maize | INM | NAC-6004 | Kharif 2007-08 | 05 | 05 | 2 | 10 | 12 | - |
| 2 | Hybrid Rice | IPM | KRH-2 IPM | Kharif 2007-08 | 02 | 02 | - | 03 | 03 | - |
| 3 | Ragi | INM | GPU- 28 | Kharif 2007-08 | 10 | 10 | 12 | 12 | 24 | - |
| COMMERCIAL CROPS | | | | | | | | | | |
| 4 | Sugarcane | IPM (Woolly aphid resistant) | COVC-2003-165 | Kharif/ Rabi 2007-08 | 01 | 01 | - | 02 | 02 | Not yet harvested |
| 5 | Sugarcane | ICM | CO-86032 | Kharif/ Rabi 2007-08 | 02 | 02 | - | 04 | 04 | Not yet harvested |
| 6 | Cotton (Hybrid) | ICM | MRC-6918 | Kharif 2007-08 | 20 | 20 | 10 | 40 | 50 | -- |
| 7. | Fisheries | IFF | Integrated Fish Farming with fruits and vegetables | Kharif 2007-08 | 1.2 | 1.2 | 03 | 03 | 06 | -- |
| OILSEEDS | | | | | | | | | | |
| 8 | Groundnut | ICM | Variety-GPBD-4 Seed treatment Stripper | Kharif 2007-08 | 05 | 05 | 02 | 10 | 12 | -- |
| 9 | Sunflower (Hybrid) | ICM | KBSH-41 Seed treatment PP measures | Rabi 2007-08 | 10 | 10 | 03 | 20 | 23 | -- |
| 10 | Groundnut | ICM | Variety-GPBD-4 Seed treatment Stripper | Rabi/summer 2007-08 | 05 | 05 | - | 8 | 8 | -- |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----------------------------|----------------------|--|--|-----------------------------|---------|---------|----|----|----|----|
| PULSES | | | | | | | | | | |
| 11 | Redgram | IPM | BRG-1 PP measures | Kh arif- 07-08 | 05 | 05 | 02 | 08 | 10 | -- |
| 12 | Bengal gram | IPM | A-1 Seed treatment IPM | Rabi - 2007-08 | 15 | 15 | 9 | 21 | 30 | -- |
| 13 | Redgram and Avare | PHT | Safe storage of pulses | Rabi – 2007-08 | 5 units | 5 units | -- | 05 | 05 | -- |
| HORTICULTURAL CROPS | | | | | | | | | | |
| 14 | Cauliflower | IPM | PP measures | Rabi 2007-08 | 01 | 01 | 02 | 03 | 05 | -- |
| 15 | Brinjal | IPM | Wota traps PP measures | Kh arif/ Rabi 2007-08 | 01 | 01 | 01 | 04 | 05 | -- |
| 16 | Tomato | Integr ated Pest Mana geme nt | Production technology of TLCV resistant varieties., Sankranti, Nandi, Vaibhav | Kh arif 2007-08 | 2.0 | 2.0 | 10 | -- | 10 | -- |
| 17 | Onion | Enha ncem ent of produ ctivit y | Production technology of HYV Arka Kalyan | Kh arif 2007-08 | 2.0 | 2.0 | 01 | 09 | 10 | -- |
| 18 | French bean | Enha ncem ent of produ ctivit y | Production technology of HYV Arka Komal | Rabi/Su mmer 2007-08 | 1.0 | 1.0 | -- | 05 | 05 | -- |
| 19 | Potato | Enha ncem ent of produ ctivit y | Production technology of Kufri Jyothi | Rabi/Su mmer 2007-08 | 1.0 | 1.0 | -- | 05 | 05 | -- |
| 20 | Areca nut | Integr ated Nutri ent Mana geme nt | Integrated Nutrient Managem ent in Areca nut | Rabi/Su mmer 2007-08 | 1.0 | 1.0 | -- | 05 | 05 | -- |
| 21 | Coconut | Integr ated Nutri ent Mana geme nt | Integrated Nutrient Managem ent in Coconut | Rabi/Su mmer 2007-08 | 1.0 | 1.0 | -- | 05 | 05 | -- |

Details of farming situation

| Crop | Season | Farming situation (RF/Irrigated) | Soil type | Status of soil | | | Previous crop | Sowing date | Harvest date | Seasonal rainfall (mm) | No. of rainy days |
|----------------------------|-------------------|-------------------------------------|--------------------------------------|----------------|----|----|-----------------------------|--|------------------------------|---------------------------|-------------------|
| | | | | N | P | K | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| CEREALS | | | | | | | | | | | |
| Maize | Kharif 2007-08 | Rainfed | Red soil | L | M | M | Maize | 04-07-07 | 1st week of Nov 07 | 700.1 | 21 |
| Rice | Kharif 2007-08 | Irrigated | Red sandy loamy | L | M | M | Rice | 08-08-07 | 10-12-07 | 700.1 | 21 |
| Ragi | Kharif 2007-08 | Rainfed | Red soil | L | M | M | Green gram | 25-08-07 | 28-12-07 | 700.1 | 21 |
| COMMERCIAL CROPS | | | | | | | | | | | |
| Sugarcane | Kharif 2007-08 | Irrigated | Black soil | M | M | H | Maize | 10-09-07 | Not yet harvested | 886.2 | 17 |
| Sugarcane | Kharif 2007-08 | Irrigated | Black soil | M | M | H | Maize | 09-10-07 | Not yet harvested | 886.2 | 17 |
| Cotton | Kharif 2007-08 | Rainfed | Black soil | M | M | H | Cotton | 09-06-07 | 1st week of Jan 08 | 701.1 | 14 |
| Fishes | Kharif 2007-08 | Irrigated | Black loamy | -- | -- | -- | -- | 10-07-07 | 25-04-08 | 710.0 | 40 |
| OIL SEEDS | | | | | | | | | | | |
| Groundnut | Kharif 2007-08 | Rainfed | Red sandy | L | M | M | Fallow | 05-07-07 | 2nd week of Oct 2007 | 575.5 | 15 |
| Groundnut | Rabi 2007-08 | Irrigated | Red sandy | L | M | M | Ragi/ Maize | 07-12-07 | 2nd week of April 2007 | 119.8 | 7 |
| Sunflower | Rabi 2007-08 | Irrigated | Red sandy to Medium black soil | M | M | H | Ragi/ Maize | 10-12-07 | 3rd week of March 2008 | 28.3 | 2 |
| PULSES | | | | | | | | | | | |
| Redgram | Kharif 2007-08 | Rainfed | Red soil | L | M | M | Fallow | 15-06-07 | 4th week of Dec 07 | 700.1 | 21 |
| Bengal gram | Rabi 2007-08 | Bore well/Rai nfed | Medium black soil | L | M | H | Ground nut/sun flower | 17-11-07 | 4th week of Feb 08 | 166.7 | 12 |
| HORTICULTURAL CROPS | | | | | | | | | | | |
| Brinjal | Kharif 2007-08 | Irrigated | Red sandy | L | M | M | Fallow | 21-06-07 | 04-10-07 | 927.6 | 29 |
| Cauliflower | Rabi 2007-08 | Irrigated | Black | M | M | H | Beans | 27-12-07 | 30-03-08 | -- | -- |
| Tomato | Kharif 2007-08 | Irrigated | Red sandy loam | L | M | M | Maize | 04-06-07 | 29-09-07 | 927.6 | 29 |
| Onion | Kharif 2007-08 | Rainfed | Black soil | M | M | H | Tomato | 26-06-07 | 27-10-07 | 501.5 | 17 |
| French bean | Rabi 2007-08 | Irrigated | Red sandy loam | L | M | M | Maize | 25-12-07 | 1st week of Feb. | 133.6 | 11 |
| Potato | Rabi 2007-08 | Irrigated | Red loam & medium sand | L | L | M | Red gram | 10-01-08 | Last week of March | 133.6 | 11 |
| Arecanut | Rabi 2007-08 | Irrigated | Red sandy loam | L | M | M | Arecan ut | 1st week of Dec. (Fertilizer applicatio n) | -- | 133.6 | 11 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------|-----------------|-----------|----------------|---|---|---|---------|--|----|-------|----|
| Coconut | Rabi 2007-08 | Irrigated | Red sandy loam | L | M | M | Coconut | 1st week of Dec. (Fertilizer application) | -- | 133.6 | 11 |

Performance of FLD

| Sl.No. | Crop | Technology Demonstrated | Variety | No. of Farmers | Area (ha.) | Demo. Yield Qtl/ha | | | Yield of local Check Qtl./ha | Increase in yield (%) | Data on parameter in relation to technology demonstrated | |
|----------------------------|--------------------|---|--|----------------|-------------|--------------------|--------------|----------------|------------------------------|-----------------------|--|---|
| | | | | | | H | L | A | | | Demo | Local |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| CEREALS | | | | | | | | | | | | |
| 1 | Maize | Integrated nutrient management | NAC-6004 | 12 | 5.0 | 46.0 | 37.5 | 41.25 | 44.0 | - | 170.12 cm 379 seeds/cob 12 rows/cob | 169.10cm 386 seeds/cob 14 rows/cob |
| 2 | Rice | Integrated pest management | KRH-2 | 03 | 2.0 | 65.5 | 62.0 | 63.66 | 46.0 | 38.39 | Stem borer 2% incidence Chaffy 5% | Stem borer 20% incidence Chaffy 20% |
| 3 | Ragi | Integrated crop management | GPU-28 | 24 | 10.0 | 23.5 | 20.5 | 22.0 | 14.0 | 57.14 | 86.60 cm 4.5 ear head | 75.40 cm 2.5 ear head |
| COMMERCIAL CROPS | | | | | | | | | | | | |
| 4 | Cotton | Integrated crop management | RCHB-708 MRC-6918 | 24 26 | 9.6 10.4 | 19.0 22.3 | 15.4 16.3 | 16.87 18.37 | 11.01 11.01 | 53.36 67.0 | 200.10 cm 95 bolls | 196.40 cm 83 bolls |
| 5 | Fisheries | Integrated Fish Farming | Catla, Rohu, Mrigal, Silver carp and Commercial crop | 6 | 1.2 | 41 | 39 | 40 | -- | -- | AV. Wt fish 0.55 kg/ Fish production and income generation is more than the popular crops of the district maize & Rice. | |
| OILSEEDS | | | | | | | | | | | | |
| 6 | Groundnut (Kharif) | Integrated crop management | GPBD-4 | 12 | 5.0 | 20.9 | 13.75 | 18.20 | 12.5 | 45.60 | 9.3 cm 35 pods | 9.0 cm 21 pods |
| 7 | Groundnut (Rabi) | Integrated crop management | GPBD-4 | 08 | 5.0 | 17.8 | 15.20 | 16.40 | 10.50 | 56.10 | 16.6 cm 27 pods | 10.2 cm 19 pods |
| 8 | Sunflower | Integrated Nutrient management | KBSH-41 | 23 | 10 | 18.0 | 12.50 | 15.27 | 12.23 | 24.00 | 102.7 cm 12 cm head 4-5% | 98.3 cm 11.2 cm 15-20% |
| PULSES | | | | | | | | | | | | |
| 9 | Redgram | Integrated pest management | BRG-1 | 10 | 5.0 | 7.20 | 6.30 | 6.86 | 5.60 | 29.0 | 204 cm 104 pods 5% pod borer | 184.9 cm 87.5 pods 15% pod borer |
| 10 | Bengalgram | Integrated pest management | A-1 | 30 | 15.0 | 6.50 | 4.10 | 5.34 | 3.90 | 36.0 | 36.8 cm 3-4% pod borer | 29.7 cm 16% pod borer |
| HORTICULTURAL CROPS | | | | | | | | | | | | |
| 11 | Brinjal | Integrated pest management | Devarahally local | 05 | 1.0 | 155.2 | 92.30 | 123.7 | 84.6 | 46.4 | 40 fruits 2-3% shoot & fruit borer | 34 fruits 25% shoot & fruit borer |
| 12 | Cauliflower | Integrated pest management | Kudurekonda | 05 | 1.0 | 15.30 t | 11.30 t | 14.10 t | 11.85 t | 35.39 | 3-4% incidence DBM | 30% incidence DBM |
| 13 | Tomato | Production technology of TLCV resistant varieties | Sankranti Nandi Vaibhav | 10 | 2.0 | 170 | 122.5 | 149.7 | 122.5 | 22.20 | Per. germination 73.2 Per. incidence of TLCV A | 61.5 B |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|----|---|--|--------------------|----|-----|-------|-------|-------|-------|-------|--|-------------|
| 14 | Onion | Production technology of purple blotch resistant variety | Arka Kalyan | 10 | 2.0 | 140.7 | 74.5 | 115.0 | 77.0 | 47.81 | Percent incidence of purple blotch A Percent germination 84.6 | B 69.8 |
| 15 | French bean | Production technology of HYV | Arka Komal | 05 | 1.0 | 161.1 | 138.3 | 149.1 | 111.8 | 22.41 | No. of days to germinate 11 | 16 |
| 16 | Potato | Production technology | Kufri Jyothi | 05 | 1.0 | 121.6 | 103.8 | 112.9 | 82.6 | 36.68 | Percent emergence 82.6 No. of tubers/plant 7.5 | 71.2 4.8 |
| 17 | Areca nut (No. of inflorescence per palm) | Integrated Nutrient Management | Thirthahalli local | 05 | 1.0 | 05 | 04 | 4.4 | 02 | 100 | No of inflorescence/palm 4.4 Percent incidence of button shedding B | 02 C |
| 18 | Coconut (No. of nut per palm) | Integrated Nutrient Management | Arsikere tall | 05 | 1.0 | 89 | 66 | 74 | 48 | 54.16 | No. of nuts/palm 74 Percent incidence of button shedding B | 48 C |

Note :

A = Low incidence

B = Slightly (2-3%)

C = Moderate incidence (8-10%)

Economic Impact (continuation of previous table)

| Crop | Average Cost of cultivation (Rs./ha) | | Average Gross Return (Rs./ha) | | Average Net Return (Profit) (Rs./ha) | | Benefit- Cost Ratio (Gross Return / Gross Cost) |
|----------------------------|---|----------------------------------|----------------------------------|----------------|---|----------------|---|
| | Demonstration | Local Check | Demonstration | Local Check | Demonstration | Local Check | |
| | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| CEREALS | | | | | | | |
| Maize | 13400 | 15000 | 25575 | 27280 | 12175 | 12280 | 1.90 |
| Rice | 18575 | 20000 | 41379 | 29900 | 22804 | 9900 | 2.23 |
| Ragi | 7240 | 6500 | 14300 | 9100 | 7060 | 2600 | 1.98 |
| COMMERCIAL CROPS | | | | | | | |
| Cotton | 17500 | 19750 | 42175 | 25300 | 24675 | 5550 | 2.41 |
| | 17500 | 19750 | 45925 | 25300 | 28425 | 5550 | 2.62 |
| Fisheries | 38073 | 33340 (Farmers investment) | 102500 | | 64427 | | 1.69 |
| OIL SEEDS | | | | | | | |
| Groundnut (Kharif) | 16750 | 18350 | 35817 | 23425 | 19067 | 5075 | 2.13 |
| Groundnut (Rabi) | 17100 | 17000 | 32800 | 19760 | 17100 | 2760 | 1.91 |
| Sunflower | 19500 | 20750 | 45810 | 36690 | 26310 | 15940 | 2.34 |
| PULSES | | | | | | | |
| Redgram | 4300 | 4500 | 10290 | 10080 | 5990 | 5580 | 2.39 |
| Bengalgram | 6500 | 6000 | 14685 | 10725 | 8185 | 4725 | 2.25 |
| HORTICULTURAL CROPS | | | | | | | |
| Brinjal | 18000 | 19500 | 49480 | 33840 | 31480 | 14340 | 2.75 |
| Cauliflower | 19550 | 22150 | 62228 | 40155 | 42678 | 18005 | 3.76 |
| Tomato | 35000 | 28700 | 89400 | 73500 | 54400 | 35500 | 2.55 |
| Onion | 22500 | 21300 | 86250 | 57750 | 63750 | 36400 | 3.83 |
| French bean | 19750 | 17360 | 44730 | 33540 | 24980 | 16180 | 2.26 |
| Potato | 46750 | 44810 | 94965 | 70210 | 49215 | 25400 | 2.05 |
| Arecanut | -- | -- | -- | -- | -- | -- | -- |
| Coconut | -- | -- | -- | -- | -- | -- | -- |

Analytical review of Component Demonstrations**1. Maize**

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|---------------------|--------|---|-------------------|----------------------|--------------------|--|
| Maize (NAC-6004) | Kharif | Seed -15kg/ha Micronutrient Zinc sulphate – 10kg/ha | Rainfed | 41.25 | 44.0 | -- |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1. | Farmers expressed seed filling was not complete. Cob sheath, and cob were thick |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1 | Non availability of seeds, Yield less than private hybrids |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organized | Date | Number of participants | Remarks |
|--------|-------------------------------|-----------------------------|--|------------------------|---|
| 1 | Farmers Training | 02 | 14-05-07 11-06-07 | 24 18 | Improved cultivation practices of Maize Intercropping in maize |
| 2 | Field visit to FLD plots | 03 | 25-06-07 12-07-07 1st week of Nov 07 | - | Sowing Intercultivation and hand weeding Harvesting |
| 3 | Media coverage TV- Programmes | 01 | 26-07-07 | - | Management of stem borer in maize |
| 4 | Group discussion | 01 | 10-05-07 | - | For selection of farmers and plot |

2. Rice:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|------------------------|--------|---|-------------------|----------------------|--------------------|--|
| Hybrid Rice (KRH-2) | Kharif | Seed - 20 kg/ha Pheromone traps - 5/ha IPM measures | Irrigated | 63.66 | 46.0 | 38.39 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|--|
| 1. | Installation of pheromone traps reduced the incidence of stem borer & chaffy ear heads |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|---|
| 1 | Cooking quality of KRH-2 was not good |
| 2 | Pheromone traps and lure should be easily and timely available at RSK level |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organized | Date | Number of participants | Remarks |
|--------|--|-----------------------------|----------------------------------|------------------------|--|
| 1 | Farmers Training | 02 | 16-06-07 08-08-07 | 11 15 | Improved cultivation practices in Rice Role of pheromone traps in IPM |
| 2 | Field visit to FLD plots | 03 | 21-08-07 03-09-07 12-10-07 | - | Transplanting Observed insects in traps Scientific field visit |
| 3 | Media coverage TV-Programmes News coverage | 01 01 | 01-08-07 28-10-07 | - | Management of stem borer in seed bed Vijaya Karnataka |
| 4 | Group discussion | 01 | 25-07-07 | 32 | For selection of farmers and demo plots |
| 5 | Method demonstration | 01 | 01-09-07 | 19 | Installation of pheromone traps |
| 6 | Field day | 01 | 15-11-07 | 28 | Farmers learnt the importance of pheromone traps |

3. Ragi:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|---------------|--------|--|-------------------|----------------------|--------------------|--|
| Ragi (GPU-28) | Kharif | Seed - 12kg/ha Biofertilizer: Azospirillum – 400g/ha | Rainfed | 22.0 | 14.0 | 57.14 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|--|
| 1. | Popularization of HYV Seeds should be made available at RSK level |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|------------------------------------|
| 1 | Resistant to blast disease |
| 2 | Good fodder quality & higher yield |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|--------------------------|-----------------------------|----------------------------------|------------------------|--|
| 1 | Farmers Training | 01 | 28-07-07 | 32 | Improved cultivation practices in ragi |
| 2 | Field visit to FLD plots | 03 | 18-07-07 16-09-07 28-12-07 | -- | Germination Hand weeding & top dressing Harvesting |
| 3 | Group discussion | 01 | 29-06-07 | 45 | For selection of farmers and plot |
| 4 | Field day | 01 | 12-10-07 | 21 | Farmers opined that GPU-28 has good growth & expecting higher yields |
| 5 | Media coverage | 01 | 17-10-07 | -- | Vijaya Karnataka |

4. Cotton:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|-----------|--------|---|-------------------|----------------------|--------------------|--|
| Bt Cotton | Kharif | Seed:, RHB-708 MRC-6918 1125gms/ha Trap crop: Bendi Fertilizer Planofix, Zimag, Plant protection: Imidacloprid, Pheromone traps, Neem pesticide | Rainfed | 16.87 18.37 | 11.01 11.01 | 53.36 67.00 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1 | Need to find out reasons for square drying & boll shedding Stringent policies are required to grow Bt cotton |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|---|
| 1 | Micronutrient & growth regulators spray reduced flower drop |
| 2 | Pheromone traps helped in assessment of pest population & timely spray reduce the cost on chemicals |
| 3 | Bendi & marigold as a trap crop reduced the pest incidence on main crop |
| 4 | C:B ratio is more when compared to other hybrids |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|---------------------------------|-----------------------------|----------|------------------------|--|
| 1 | Farmers Training | 06 | 19-05-07 | 28 | ICM in Cotton, FFS, Soil sampling Soil sampling and ICM IPM practices Role of micronutrients in cotton Role of pheromone traps in IPM ICM in cotton |
| | | | 22-05-07 | 47 | |
| | | | 31-05-07 | 20 | |
| | | | 02-08-07 | 13 | |
| | | | 20-08-07 | 19 | |
| | | | 07-10-07 | 16 | |
| 2 | Field visit to FLD plots | 04 | 03-06-07 | 35 | Sowing Trap installation, Micronutrient spray Micronutrient spray Pickings |
| | | | 25-07-07 | 28 | |
| | | | 29-11-07 | 36 | |
| | | | 02-12-07 | 21 | |
| 3 | Media coverage News coverage | 04 | 24-05-07 | -- | Kannada Prabha Vijaya Karnataka Janatha Vani Prajavani |
| | | | 04-06-07 | | |
| | | | 27-07-07 | | |
| | | | 04-12-07 | | |
| | Radio talk | 01 | 15-10-07 | | AIR- Bhadravati |
| 4 | Group discussion | 04 | -- | 65 | Group meeting conducted at time field visits |
| 5 | Method demonstration | 03 | 24-05-07 | 46 | Soil sampling Sowing technique Trap installation |
| | | | 03-06-07 | 35 | |
| | | | 25-07-07 | 28 | |
| 6 | Field day | 02 | 29-11-07 | 78 | Field days conducted at Anajigere and Budihal of Harapanahalli taluk |
| | | | 13-12-07 | 64 | |

5. Fisheries - Aquaculture

| Crop | Season | Component | Farming situation | Average yield (t/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|-----------|--------|---|-------------------|----------------------|--------------------|--|
| Fisheries | Kharif | Fish fingerlings (<i>Catla catla</i> , <i>Labeo rohita</i> , <i>cirrhinus mrigala</i> , <i>cyprinus carpio</i>) Vitamin mineral mixture | Irrigated | 4 | -- | -- |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1 | Initial investment for pond construction is difficult for small farmers (Current subsidy provided is not enough). |
| 2 | Poaching and enemy birds. |
| 3 | Non availability of bigger size fingerlings in required number at seed stocking time. |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1 | Many new farmers were trained under this FLD to take up fish culture as a subsidiary entrepreneurship. |
| 2 | Few of them were apprehensive in the beginning and became convinced at the end of FLD. |
| 3 | Many of them have decided to take up fish culture independently. |
| 4 | They have realized that fish in tank is like a money in bank. |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organized | Date | Number of participants | Remarks |
|--------|---|-----------------------------|--|----------------------------------|--|
| 1 | Selection of farmers and Training programme | 06 | 16-05-07 18-07-07 16-08-07 08-02-08 19-03-08 24-03-08 | 17 13 11 36 29 08 | <ul style="list-style-type: none"> Farmers were selected Principles of aquaculture and sustainable integrated fish farming Fish seed training Larvicidal fishes Aquaculture as a profitable entrepreneurship Pond aquaculture management |
| 2 | Field visit to FLD plots | 05 | 11-07-07 14-08-07 27-11-07 18-01-08 09-04-08 | -- | <ul style="list-style-type: none"> Stocking and fertilization management Feeding regime Sampling fish for weight Health and general growth monitoring Pre-harvest sampling for weight |
| 3 | Media coverage News coverage | 05 | 09-02-08 18-01-08 30-01-08 07-02-08 06-07-08 | -- | Kannada Prabha Kannada Prabha Kannada Prabha Kannada Prabha Vijaya Karnataka |

| | | | | | | |
|---|----------------------|----|----------|----------------------------------|----------------|--|
| | Radio talk | 01 | 16-02-08 | | | “Sustainable Integrated Inland Fish Aquaculture”, AIR- Bhadravati |
| | TV programme | 01 | 28-01-08 | | | “Larvicidal Ornamental Fishes”, Kasturi Krsihi Programme |
| 4 | Group discussion | | 01 | 16-05-07 | 17 | Selection of farmers |
| 5 | Method demonstration | | 03 | 11-07-07 14-08-07 18-01-08 | 22 14 19 | Pond preparation and seed stocking Fertilizer application Feed preparation and feeding |

5. Groundnut:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|-----------|--------|---|-------------------|----------------------|--------------------|--|
| Groundnut | Kharif | Seed: GPBD-4 Biofertilizer: Rhizobium Fertilizer, Tricoderma | Rainfed | 9.67 | 7.21 | 34.12 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|--|
| 1 | Need to develop high yielding variety |
| 2 | Need to popularize gypsum application, intercropping |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1 | Seed treatment with Trichoderma reduced the incidence of root & collar rot |
| 2 | Gypsum application made soil friable favored the peg penetration |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|--|-----------------------------|----------------------------------|------------------------|--|
| 1 | Farmers Training | 03 | 05-06-07 30-10-07 11-06-07 | 21 20 12 | Soil testing groundnut stripper Integrated crop management |
| 2 | Field visit to FLD plots | 03 | 25-06-07 09-08-07 10-08-07 | - | Suggested seed treatment, fertilizer doses, plant protection measures |
| 3 | Media coverage TV-Programmes News coverage | 01 02 | 18-08-07 15-10-07 13-10-07 | - | Plant protection measures in groundnut Janatha Vani Vijaya Karnataka |
| 4 | Group discussion | 01 | 24-05-07 | 32 | Preliminary visit |
| 5 | Method demonstration | 02 | 25-06-07 09-08-07 | 30 22 | Seed treatment Groundnut stripper |
| 6 | Field day | 01 | 11-10-07 | 37 | - |

7. Groundnut:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|-----------|-------------|--|-------------------|----------------------|--------------------|--|
| Groundnut | Rabi/Summer | Seed: GPBD-4 Biofertilizer: Rhizobium Fertilizer, Tricoderma | Irrigated | 16.40 | 10.50 | 56.10 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|--|
| 1 | Need to develop high yielding variety |
| 2 | Need to popularize gypsum application, intercropping |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1 | Seed treatment with Trichoderma reduced the incidence of root & collar rot |
| 2 | Gypsum application made soil friable favored the peg penetration |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|--|-----------------------------|--|------------------------|---|
| 1 | Farmers Training | 03 | 06-12-07 08-12-07 22-02-08 | 14 15 14 | Integrated crop management Seed treatment, role of gypsum |
| 2 | Field visit to FLD plots | 05 | 08-12-07 15-12-07 09-01-08 30-01-08 15-04-08 | - | Sowing Disease diagnosis Spraying of chemicals Visit of TRDF dignitaries Harvesting |
| 3 | Media coverage TV-Programmes News coverage | 01 02 | 27-02-08 27-02-08 29-02-08 | - - | Improved cultivation practices in groundnut Kannada Prabha Vijaya Karnataka |
| 4 | Group discussion | 01 | 10-11-07 | 45 | Preliminary visit for farmers selection |
| 5 | Method demonstration | 03 | 08-12-07 15-12-07 09-01-08 | 14 12 16 | Seed treatment Groundnut stripper Gypsum application |
| 6 | Field day | 01 | 25-02-08 | 40 | ICM |

8. Sunflower:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|----------------------------|-------------|---|-------------------|----------------------|--------------------|--|
| Hybrid Sunflower (KBSH-41) | Rabi/Summer | Seed: KBSH-41 Seed treatment Borax & Imidacloprid spray ZnSo4 application | Irrigated | 15.27 | 12.23 | 24.0 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1 | Azospirillum, PSB and trichoderma are essential |
| 2 | Micronutrient application increased yield |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|---|
| 1 | Technical details on soil testing and fertilizer management is needed |
| 2 | Timely management of pest and diseases increases yield |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|--|-----------------------------|--|------------------------|--|
| 1 | Farmers Training | 03 | 07-11-07 05-12-07 07-02-08 | 08 16 27 | Seed treatment Integrated crop management IPM |
| 2 | Field visit to FLD plots | 03 | 08-12-07 15-01-08 06-02-08 12-02-08 | - | Proper seed spacing Fertilizer and plant protection measures |
| 3 | Media coverage TV-Programmes News coverage | 01 02 | 28-02-08 08-12-07 13-02-08 | - - | Improved cultivation practices in Sunflower (Kasturi TV) Kannada Prabha Vijaya Karnataka |
| 4 | Group discussion | 01 | 5-12-07 | 25 | Preliminary visit for farmers selection |
| 5 | Method demonstration | 02 | 08-12-07 | 45 | Seed treatment IPM |
| 6 | Field day | 01 | 12-02-08 | 28 | -- |

9. Redgram

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|---------|--------|---|-------------------|----------------------|--------------------|--|
| Redgram | Kharif | Seed: BRG-1 Seed treatment Rhizobium, Trichoderma Pheromone traps HA NPV | Rainfed | 6.18 | 4.81 | 32.78 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|--|
| 1. | Rhizobium, PSB and Trichoderma are essential |
| 2. | Pheromone traps are essential for management of pod borer. |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1. | Trichoderma treatment reduced the wilt incidence |
| 2. | Monitoring of pod borer by the use of Pheromones traps was successful. |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|---------------------------------|-----------------------------|---|------------------------|--|
| 1 | Farmers Training | 04 | 15-06-07 25-06-07 12-07-07 11-05-07 | 18 26 15 20 | Soil testing and sowing Role of pheromone traps Intercropping ICM |
| 2 | Field visit to FLD plots | 05 | 15-06-07 25-06-07 12-07-07 28-07-07 3-11-07 | - | Suggested seed treatment, installation of the pheromone traps and plant protection measures. |
| 3 | Media coverage News coverage | 02 | 07-05-07 11-05-07 | - - | Janatha Vani Samyuktha Karnataka |
| 4 | Group discussion | 01 | 10-05-07 | 22 | Preliminary visit for farmers selection |
| 5 | Method demonstration | 02 | 15-06-07 25-06-07 | 45 | Seed treatment Traps installation |

10. Bengalgram:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|-------------|-----------------|---|-------------------|----------------------|--------------------|--|
| Bengal gram | Rabi/ summer | Seed: A-1 Seed treatment Rhizobium, PSB Trichoderma Pheromone traps Neem pesticide | Rainfed | 5.34 | 3.9 | 36.00 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1. | HYV in desi and kabuli type needed. |
| 2. | Cost effective and eco friendly, IPM practices need to be popularised |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|---|
| 1. | Seeds were pure and 100% germination |
| 2. | Trichoderma seed treatment reduced the wilt incidence |
| 3. | Pheromone trap reduced the cost on chemicals and also helps in monitoring the insect. |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|---|-----------------------------|--|------------------------|--|
| 1 | Farmers Training | 04 | 15-11-07 16-11-07 05-12-07 23-02-08 | 30 30 18 31 | Seed treatment ICM IPM |
| 2 | Field visit to FLD plots | 02 | 16-11-07 05-12-07 | - | Monitoring the insects in the traps Field observation of the pest incidence |
| 3 | Media coverage Kasturi Tv News coverage | 01 03 | 23-02-08 24-11-07 07-12-07 28-02-08 | - - | ICP Vijay Karnataka Vijay Karnataka Kanada Prabha |
| 4 | Group discussion | 01 | 13-11-07 | 35 | Preliminary visit for farmers selection |
| 5 | Method demonstration | 03 | 16-11-07 05-12-07 23-12-07 | 39 | Seed treatment Traps installation Spraying methods |
| 6. | Field Day | 01 | 26-02-08 | 50 | -- |

11. Brinjal:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|---------|--------|--|-------------------|----------------------|--------------------|--|
| Brinjal | Kharif | Woto traps:13/ha Neem oil: 1lt/ha Profenophos : 1lt/ha | Rainfed | 123.70 | 84.60 | 46.40 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1. | Cost effective and eco friendly, IPM practices need to be popularised |
| 2. | Woto traps are very much needed for shoot & fruit borer management |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1 | Woto trap reduced the cost on chemicals and also helps in monitoring the insect. |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|---------------------------------|-----------------------------|--|------------------------|--|
| 1 | Farmers Training | 02 | 14-06-07 17-06-07 | 13 11 | Installation of pheromone traps Ecofriendly management of shoot & fruit borer |
| 2 | Field visit to FLD plots | 04 | 21-06-07 09-07-07 03-08-07 04-10-07 | - | Transplanting Woto traps installation Spraying operation Harvesting |
| 3 | Media coverage News coverage | 02 | 10-07-07 05-08-07 | - | Samyuktha Karnataka Kanada Prabha |
| 4 | Group discussion | 01 | 18-06-07 | 17 | Preliminary visit for farmers selection |
| 5 | Method demonstration | 02 | 09-07-07 03-08-07 | 12 09 | Installation of Woto traps Neem product preparation & spraying |

12. Cauliflower:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|-------------|-----------------|--|-------------------|----------------------|--------------------|--|
| Cauliflower | Rabi/ summer | Mustard seeds DDVP : 2 lt./ha Pongamia soap :1kg/ha Spinosad : 75ml/ha | Irrigated | 14.10 t | 11.85 t | 35.39 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1. | Mustard seeds, pongamia soap & spinosad are essential |
| 2. | Need to popularize IPM methods |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1. | Timely management of pest and diseases increases yield |
| 2. | Mustard crop acts as a trap crop |
| 3. | Pongamia soap is ecofriendly agent for pest management |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|---------------------------------|-----------------------------|----------------------------------|------------------------|---|
| 1 | Farmers Training | 01 | 19-12-07 | 13 | IPM measures in cauliflower |
| 2 | Field visit to FLD plots | 04 | 27-12-07 17-01-08 03-02-08 | 08 10 13 | Transplanting Field observation of the pests Spraying operation |
| 3 | Media coverage News coverage | 02 | 19-01-08 05-02-08 | - | Prajavani Janatha Vani |
| 4 | Group discussion | 01 | 23-12-07 | 14 | Preliminary visit for farmers selection |
| 5 | Method demonstration | 01 | 17-01-08 | 11 | Preparation of spraying solution of pongamia soap |

13. Tomato:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|--------|----------------|---|-------------------|----------------------|--------------------|--|
| Tomato | Kharif 2007-08 | Combination of components Trichoderma – 1500g/ha Seeds – 100g/ha Neem cake – 300 kg/ha | Irrigated | 149.7 | 122.5 | 22.20 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|--|
| 1 | Need to popularize TLCV resistant varieties during summer months |
| 2 | Raised seed bed method ensures quality seedlings |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1 | Raised seed bed method helps in reducing damping off of seedlings and got good quality seedlings |
| 2 | Use of disease resistant varieties reduced the cost of plant protection chemicals |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|------------------------------|-----------------------------|--|------------------------|--|
| 1 | Field days | 01 | 29-09-07 | 18 | -- |
| 2 | Farmers Training | 04 | 08-05-07 23-05-07 28-05-07 24-08-07 | 24 12 08 12 | Method of raising quality planting materials Production technology of TLCV resistant varieties in tomato Importance of staking and pheromone traps in tomato |
| 3 | Media coverage TV-Programmes | 01 | 07-09-07 | -- | Plant protection measures in tomato |
| 4 | Method demonstrations | 02 | -- | -- | - Seed treatment - Raised seed bed preparation |
| 5 | Field visit to FLD plots | 05 | 04-06-07 21-06-07 12-07-07 10-08-07 24-08-07 | -- | Suggested fertilizer doses and timely plant protection measures |
| 6 | Group discussion | 01 | 08-05-07 | 24 | For selection of farmers and plot |

14. Onion:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|-------|-----------------|------------------------------|-------------------|----------------------|--------------------|--|
| Onion | Khariif 2007-08 | Arka Kalyan seeds – 10 kg/ha | Rainfed | 115 | 77 | 47.81 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1 | Popularization of purple blotch resistant varieties helped to reduce cost on plant protection chemicals |
| 2 | Medium sized bulbs with light red colour helps in fetching better price to the produce |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1 | Farmers expressed better performance of variety the next season with the technical assistance of KVK, they have taken seed production of the variety |
| 2 | Nearly 70% of the total onion cropped area of the village is under Arka Kalyan |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|--------------------------|-----------------------------|--|------------------------|---|
| 1 | Field days | 01 | 27-10-07 | 23 | -- |
| 2 | Farmers Training | 01 | 12-06-07 | 20 | Management of purple blotch in onion |
| 3 | Method demonstration | 01 | -- | -- | Seed treatment with trichoderma |
| 4 | Group discussion | 01 | 06-06-07 | 20 | For selection farmers and demo plots |
| 5 | Field visit to FLD plots | 04 | 26-06-07 13-07-07 12-08-07 27-10-07 | -- | Suggested method of planting, application of fertilizer doses and plant protection measures |

15. Frenchbean:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|-------------|--------------|-----------------------------|-------------------|----------------------|--------------------|--|
| French bean | Rabi 2007-08 | Arka Komal seeds – 70 kg/ha | Irrigated | 149.1 | 111.8 | 22.41 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1 | Seed treatment with trichoderma helps in prevention of seed born diseases |
| 2 | Use of systemic insecticides reduced the leaf minor and viral disease incidence |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1 | Arka Komal out yielded local check and got higher net returns |
| 2 | Profilatic sprays helps in reducing the pest and disease incidence |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|-----------------------------------|-----------------------------|--|------------------------|--------------------------------------|
| 1 | Method demonstration | 02 | -- | 25 | Seed treatment, IPM |
| 2 | Farmers Training | 01 | 12-12-07 | 10 | Production technology of French bean |
| 3 | Media coverage Paper clippings | 01 | 01-02-08 | -- | Kannada prabha |
| 4 | Group discussion | 01 | 12-12-07 | 10 | Preliminary visit |
| 5 | Field visit | 04 | 13-12-07 25-12-07 12-01-08 01-02-08 | -- | Regular follow up of FLD activities |

16. Potato:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|--------|--------------|--|-------------------|----------------------|--------------------|--|
| Potato | Rabi 2007-08 | Combination of components Kufri Jyothi seed tubers – 1800 kg/ha Dithane-M-45 – 1 kg/ha | Irrigated | 112.9 | 82.6 | 36.68 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|--|
| 1 | Need to develop and popularize heat tolerant varieties |
| 2 | Tubers with low reducing and non reducing sugar content needed for processing industries |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|--|
| 1 | Seed treatment helps in prevention of late blight incidence |
| 2 | Proper earthing up helps in preventing greening of tubers and getting good quality seeds |
| 3 | Application of SOP rather than MOP helps in getting good quality tubers |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|-----------------------|-----------------------------|--|------------------------|---|
| 1 | Method demonstrations | 01 | 01-01-08 | 30 | Tuber treatment with carbendiazim, method of sowing |
| 2 | Farmers Training | 01 | 26-03-08 | 29 | Production technology of Potato |
| 3 | Field visit | 05 | 01-01-08 24-01-08 11-02-08 26-03-08 20-04-08 | -- | Regular FLD follow up |
| 4 | Group discussion | 01 | 08-01-08 | 10 | Preliminary visit |

17. Arecanut:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|--|-----------------|---|-------------------|----------------------|--------------------|--|
| Areca nut (No. of inflorescence per palm) | Rabi 2007-08 | Combination of components Rock phosphate – 125 kg/ha Borax – 70 kg/ha | Irrigated | 04 | 02 | 100 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|---|
| 1 | There is need to popularize fertigation and application of micronutrients |
| 2 | Need to popularize cultivation of green manure crops |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|---|
| 1 | Application of full dose of potash helps in getting more number of inflorescence per palm |
| 2 | Borax application reduced the button shedding incidence |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|---|-----------------------------|--|------------------------|--|
| 1 | Method demonstration | 03 | -- | 40 | Method of application of fertilizers through formation of basins |
| 2 | Farmers Training | 04 | 01-12-07 20-01-08 29-01-08 15-03-08 | 12 30 57 19 | Role of micronutrients in areca nut Production technology of plantation crops Improved production technology and plant protection measures in horticulture crops |
| 3 | Media coverage TV Programme Radio talk Paper clippings | 03 01 02 | 10-08-07 27-08-07 23-03-08 18-02-08 01-11-07 01-02-08 | -- | Krishi kasturi, Kasturi TV Annadata, E-TV Kannada AIR- Bhadravati Vijaya Karnataka Kannada Prabha |
| 4 | Seminar | 02 | 31-10-07 29-01-08 | 286 53 | Production technology of areca nut and coconut |
| 5 | Field visit | 04 | 01-12-07 25-01-08 13-01-08 28-02-08 | -- | Regular follow up visit to FLD plots |

18. Coconut:

| Crop | Season | Component | Farming situation | Average yield (q/ha) | Local check (q/ha) | Percentage increase in productivity over local check |
|-------------------------------|--------------|---|-------------------|----------------------|--------------------|--|
| Coconut (No. of nut per palm) | Rabi 2007-08 | Combination of components Borax – 5 kg/ha Neem cake – 100 kg/ha | Irrigated | 74 | 48 | 54.16 |

Technical Feedback on the demonstrated technologies

| S. No | Feed Back |
|-------|--|
| 1 | Need to create awareness on integrated nutrient management and community management systems in coconut gardens |
| 2 | Application of potash and micronutrients imparts disease resistance palms |

Farmers' reactions on specific technologies

| S. No | Feed Back |
|-------|---|
| 1 | Observed more number of nut per palm compare to local check |
| 2 | Stengthening the coconut palms with good nutrition helps imparting resistance |

Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organised | Date | Number of participants | Remarks |
|--------|---|-----------------------------|--|------------------------|---|
| 1 | Farmers Training | 04 | 01-12-07 20-01-08 29-01-08 27-02-08 | 12 30 57 14 | Role of micronutrients in coconut Production technology of plantation crops Improved production technologies and plant protection measures in horticulture crops Nutrition management in coconut |
| 2 | Method demonstration | 03 | -- | 35 | Method of application of fertilizers through formation of basins |
| 3 | Media coverage TV- Programmes Radio talk Paper clippings | 02 01 03 | 11-08-07 05-02-07 23-11-07 01-11-07 01-02-08 03-03-08 | -- | Krishi kasturi, Kasturi TV Annadata, E-TV Kannada AIR- Bhadravati Vijaya Karnataka Kannada Prabha |
| 4 | Seminar | 02 | 31-10-07 29-01-08 | 286 53 | Production technology of coconut |
| 5 | Group discussion | 01 | 01-12-07 | 15 | Preliminary visit |
| 6 | Field visit | 03 | 01-12-07 25-01-08 13-01-08 | -- | Regular follow up of FLD activities |

Sponsored FLD

Sponsoring agency : AICRP (Maize), ARS, Nagenahalli, Mysore

| Crop | Technology Demonstrated | Variety | No. of Farmers | Area (acres) | Demo. Yield Qtl/ha | Cost of production (Rs.) | Gross return (Rs.) | Net Returns (Rs.) | B:C ratio |
|-------|------------------------------|----------|----------------|--------------|--------------------|--------------------------|--------------------|-------------------|-----------|
| Maize | Recent production technology | NAC-6004 | 07 | 07 | 16.95 | 5360 | 10509 | 5149 | 1.96 |
| | | NAH-2049 | 05 | 05 | 20.86 | 6000 | 12933 | 6933 | 2.15 |

C. Details of FLD on Enterprises

i) Farm implements – NIL

ii) Livestock enterprises – NIL

iii) Other Enterprises: Post Harvest Technology

| Enterprise | Variety/ breed/Species/others | No. of farmers | No. of Units | Performance parameters / indicators | Data on parameter in relation to technology demonstrated | | % change in the parameter | Remarks |
|-------------------|-------------------------------|----------------|--------------|-------------------------------------|--|-------------|---------------------------|---|
| | | | | | Demon. | Local check | | |
| Storage of pulses | Pulses | 5 | 5 | Net weight of 100 seeds | 10 g | 6 g | -- | Safe storage of pulses over grains for 6 and half months prevented pest damage in pulses (Red gram and Avare) storage at household level. |
| | | | | seeds damaged | Nil | 40 - 50% | | |

Extension and training activities under FLD

| Sl.No. | Activity | No. of activities organized | Date | Number of participants | Remarks |
|--------|--------------------------|-----------------------------|--|------------------------|---|
| 1. | Group discussion | 01 | 30-12-07 | 14 | Selection of farmers/farm women |
| 2. | Training Programme | 01 | 07-01-08 | 07 | Importance of scientific and safe storage of grains |
| 3. | Method demonstration | 02 | 09-01-08 14-01-08 | 10 09 | Sun drying of pulses Spreading thin layer of fine sand over grains |
| 4. | Field visit to FLD units | 04 | 22-02-08 15-03-08 26-05-03 28-05-03 | 14 09 08 13 | To observe infestation Final observation |

3.3 Achievements on Training (Including the sponsored and FLD training programmes):**A) ON Campus****Farmers and Farm Women**

| Date | Title of the training programme | Duration in days | Number of participants (General) | | | Number of SC/ST | | | Total number of participants | | |
|----------------------|--|------------------|----------------------------------|--------|-------|-----------------|--------|-------|------------------------------|--------|-------|
| | | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 07-10-07 | Integrated Crop Management in Cotton | 01 | 11 | -- | 11 | 05 | -- | 05 | 16 | -- | 16 |
| 11-10-07 | Integrated Crop Management in Groundnut | 01 | 26 | 04 | 30 | 07 | -- | 07 | 33 | 04 | 37 |
| 03-11-07 | Importance of Ragi and Ragi malt preparation in daily diet | 01 | -- | 15 | 15 | -- | -- | -- | -- | 15 | 15 |
| 06-11-07 | Demonstration on preparation of Envelops of different sizes | 01 | -- | 15 | 15 | -- | -- | -- | -- | 15 | 15 |
| 07-11-07 | Seed treatment with Imidacloprid in Sunflower | 01 | 06 | 02 | 08 | -- | -- | -- | 06 | 02 | 08 |
| 15-11-07 | Improved production technologies in Bengalgram | 01 | 30 | -- | 30 | -- | -- | -- | 30 | -- | 30 |
| 01-12-07 | Role of micronutrients in Arecanut and Coconut production | 01 | 12 | -- | 12 | -- | -- | -- | 12 | -- | 12 |
| 05-12-07 | Role of pheromone traps in Management of pod borer in Bengalgram | 01 | 18 | -- | 18 | -- | -- | -- | 18 | -- | 18 |
| 05-12-07 to 07-12-07 | Integrated Crop Management in Sunflower | 03 | 15 | -- | 15 | 01 | -- | 01 | 16 | -- | 16 |
| 06-12-07 | Integrated Crop Management in Groundnut (GPBD-4) | 01 | 08 | -- | 08 | -- | -- | -- | 08 | -- | 08 |
| 12-12-07 to 13-12-07 | Production Technologies in Beans | 02 | 10 | -- | 10 | -- | -- | -- | 10 | -- | 10 |
| 19-12-07 to 21-12-07 | Processing and preservation of food crops – Agro-based enterprises for rural women | 03 | -- | 21 | 21 | -- | 27 | 27 | -- | 48 | 48 |
| 26-12-07 to 28-12-07 | Management of nursery in Rice | 03 | -- | 19 | 19 | -- | 05 | 05 | -- | 24 | 24 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----------------------------|--|----|----|----|----|----|----|----|----|----|----|
| 07-01-08 | Safe storage of Pulses | 01 | 03 | 04 | 07 | -- | -- | -- | 03 | 04 | 07 |
| 07-02-08 to 08-02-08 | Integrated Pest Management in Sunflower | 02 | 18 | 01 | 19 | 07 | 01 | 08 | 25 | 02 | 27 |
| 27-02-08 to 28-02-08 | Importance of nutrition management in Coconut | 02 | 10 | -- | 10 | 04 | -- | 04 | 14 | -- | 14 |
| 15-03-08 | Constraints in production technologies in arecanut | 01 | 19 | -- | 19 | -- | -- | -- | 19 | -- | 19 |
| 15-03-08 | Empowerment of women by agro based enterprises and marketing aspects | 01 | -- | 14 | 14 | -- | -- | -- | -- | 14 | 14 |
| 19-03-08 | Integrated fish farming in inland ponds | 02 | 19 | -- | 19 | 10 | -- | 10 | 29 | -- | 29 |
| 24-03-08 to 25-03-08 | Integrated inland fish aquaculture | 02 | 08 | -- | 08 | -- | -- | -- | 08 | -- | 08 |
| 24-03-08 to 25-03-08 | Prevention and control of foot and mouth disease in cattle | 02 | 18 | -- | 18 | 11 | -- | 11 | 29 | -- | 29 |
| 26-03-08 to 28-03-08 | Improved production technologies in potato cultivation | 03 | 17 | -- | 17 | 12 | -- | 12 | 29 | -- | 29 |
| 22-05-08 | Integrated inland fish culture in farm ponds | 01 | 16 | 02 | 18 | 05 | -- | 05 | 21 | 02 | 23 |
| 27-05-08 | Post harvest technologies in cereals and pulses | 01 | 02 | 11 | 13 | -- | -- | -- | 02 | 11 | 13 |
| 02-06-08 to 03-06-08 | Improved production technologies in ragi, maize and rice | 02 | 13 | 01 | 14 | -- | -- | -- | 13 | 01 | 14 |
| 18-06-08 | Micronutrients deficiency practices in vegetable crops | 01 | 29 | -- | 29 | -- | -- | -- | 29 | -- | 29 |
| 18-06-08 | Improved production technologies in minor millets and value products | 01 | 23 | -- | 23 | 07 | -- | 07 | 30 | -- | 30 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------------|--|----|----|----|----|----|----|----|----|----|----|
| 19-06-08 | Improved cultivation practices in Onion and seed production technologies | 01 | 07 | -- | 07 | 05 | -- | 05 | 12 | -- | 12 |
| 20-06-08 | Introduction of new maize variety NAH-2049 (Released by UAS-B) and its production technologies | 01 | 07 | -- | 07 | 01 | -- | 01 | 08 | -- | 08 |
| 05-07-08 and 06-07-08 | Preparation of soap powder and other home products | 02 | -- | 10 | 10 | -- | -- | -- | -- | 10 | 10 |
| 07-07-08 | Management of bud necrosis, black headed caterpillar and use of borax in sunflower | 01 | 09 | -- | 09 | 04 | -- | 04 | 13 | -- | 13 |
| 12-07-08 | Fish farming in Rice fields-An alternative cropping system | 01 | 14 | 05 | 19 | 06 | -- | 06 | 20 | 05 | 25 |
| 18-07-08 and 19-07-08 | Improved cultivation practices and integrated pest management in redgram | 02 | 09 | 01 | 10 | 05 | -- | 05 | 14 | 01 | 15 |
| 18-07-08 | Importance of minor millets in daily diet and its value products | 01 | 10 | 09 | 19 | 04 | 02 | 06 | 14 | 11 | 25 |
| 22-07-08 and 23-07-08 | Cultivation of fodder crops and their nutritive value | 02 | 21 | 03 | 24 | 02 | 01 | 03 | 23 | 04 | 27 |
| 01-08-08 and 02-08-08 | Improved agricultural practices in Sunflower | 02 | 08 | -- | 08 | 03 | -- | 03 | 11 | -- | 11 |
| 21-08-08 and 22-08-08 | Fruits and vegetable processing and preservation | 02 | -- | 12 | 12 | -- | -- | -- | -- | 12 | 12 |
| 01-09-08 | Importance of planofix & micronutrient in cotton for higher yield | 01 | 18 | -- | 18 | 02 | -- | 02 | 20 | -- | 20 |

Rural Youth

| Date | Title of the training programme | Duration in days | Number of participants (General) | | | Number of SC/ST | | | Total number of participants | | |
|-----------------------|---|------------------|----------------------------------|--------|-------|-----------------|--------|-------|------------------------------|--------|-------|
| | | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 16-10-07 | Management of blast and BLB in Rice | 01 | 04 | 06 | 10 | 01 | -- | 01 | 05 | 06 | 11 |
| 20-01-08 to 22-01-08 | Improved cultivation practices in Horticultural crops | 03 | 13 | 10 | 23 | 06 | 01 | 07 | 19 | 11 | 30 |
| 03-02-08 and 04-02-08 | Improved cultivation practices in Maize | 02 | 23 | -- | 23 | 07 | -- | 07 | 30 | -- | 30 |
| 08-02-08 and 09-02-08 | Larvicidal fishes to control mosquito menace | 02 | 08 | 25 | 33 | 01 | 02 | 03 | 09 | 27 | 36 |
| 28-02-08 to 01-03-08 | Improved cultivation practices in Maize and Coconut | 03 | 26 | 26 | 52 | -- | 07 | 07 | 26 | 33 | 59 |
| 24-04-08 and 27-04-08 | Post harvest technologies in Horticultural crops | 02 | 03 | 08 | 11 | 19 | -- | 19 | 22 | 08 | 30 |
| 20-06-08 and 21-06-08 | Lime application in aquaculture and waste recycling for sustainable environment | 02 | 01 | 07 | 08 | -- | -- | -- | 01 | 07 | 08 |
| 04-08-08 | Identifications of diseases in Cereals and Pulses & their management | 01 | 05 | 24 | 29 | -- | 05 | 05 | 05 | 29 | 34 |
| 17-08-08 | Nutrition management and balanced diet for dairy animals | 01 | 18 | 06 | 24 | 02 | -- | 02 | 20 | 06 | 26 |

Extension Personnel

| Date | Title of the training programme | Duration in days | Number of participants (General) | | | Number of SC/ST | | | Total number of participants | | |
|----------------------|---|------------------|----------------------------------|--------|-------|-----------------|--------|-------|------------------------------|--------|-------|
| | | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 17-01-08 to 19-01-08 | Processing of Ragi Maize and Soybean and their value added products | 03 | -- | 24 | 24 | -- | 09 | 09 | -- | 33 | 33 |

B) OFF Campus**Farmers and Farm Women**

| Date | Title of the training programme | Duration in days | Number of participants (General) | | | Number of SC/ST | | | Total number of participants | | |
|----------|---|------------------|----------------------------------|--------|-------|-----------------|--------|-------|------------------------------|--------|-------|
| | | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 06-10-07 | Role of Botanical s in IPM | 01 | 11 | -- | 11 | 04 | -- | 04 | 15 | -- | 15 |
| 12-10-07 | ICM in Ragi | 01 | 03 | -- | 03 | 07 | 11 | 18 | 10 | 11 | 21 |
| 15-10-07 | Soil testing | 01 | 07 | -- | 07 | 01 | -- | 01 | 08 | -- | 08 |
| 27-10-07 | Introduction of Drudgery reducing equipments – Groundnut stripper | 01 | 06 | -- | 06 | -- | 07 | 07 | 06 | 07 | 13 |
| 30-10-07 | Harvesting and curing in Onion | 01 | 06 | 10 | 16 | 02 | 05 | 07 | 08 | 15 | 23 |
| 03-11-07 | Role of Pheromone traps and botanical pesticides in IPM of Red gram | 01 | 05 | 09 | 14 | -- | -- | -- | 05 | 09 | 14 |
| 14-11-07 | Role of Pheromone traps in controlling pod borer in red gram | 01 | 11 | -- | 11 | -- | -- | -- | 11 | -- | 11 |
| 16-11-07 | Seed treatment with bio fertilizers | 01 | 30 | -- | 30 | -- | -- | -- | 30 | -- | 30 |
| 16-11-07 | Management of micro nutrients through COT in cabbage | 01 | 12 | -- | 12 | -- | -- | -- | 12 | -- | 12 |
| 22-02-08 | Importance of gypsum in Groundnut and its utilization | 01 | 09 | 02 | 11 | 03 | -- | 03 | 12 | 02 | 14 |
| 23-02-08 | Management of pest and diseases in Bengal gram | 01 | 28 | 05 | 33 | -- | 01 | 01 | 28 | 06 | 34 |
| 21-05-08 | Summer ploughing and importance of soil testing | 01 | 18 | -- | 18 | 05 | -- | 05 | 23 | -- | 23 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----------|--|----|----|----|----|----|----|----|----|----|----|
| 21-05-08 | Improved production technologies in vegetable crops | 01 | 11 | -- | 11 | 04 | -- | 04 | 15 | -- | 15 |
| 26-05-08 | Improved production technologies in Maize, Rice and minor millets | 01 | 18 | 04 | 22 | 08 | -- | 08 | 26 | 04 | 30 |
| 27-05-08 | Integrated crop management in Cotton, importance of Farmers Field School | 01 | 15 | 05 | 20 | 10 | -- | 10 | 25 | 05 | 30 |
| 07-07-08 | Use of pheromone traps and management of nutrients in Cotton | 01 | 18 | -- | 18 | 02 | 02 | 04 | 20 | 02 | 22 |
| 16-07-08 | Integrated Inland Fish Culture | 01 | 07 | -- | 07 | 08 | 01 | 09 | 15 | 01 | 16 |
| 12-08-08 | Production technologies in Onion and pest management | 01 | 15 | -- | 15 | 07 | -- | 07 | 22 | -- | 22 |

Rural Youth

| Date | Title of the training programme | Duration in days | Number of participants (General) | | | Number of SC/ST | | | Total number of participants | | |
|----------------------|---|------------------|----------------------------------|--------|-------|-----------------|--------|-------|------------------------------|--------|-------|
| | | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 20-01-08 to 22-01-08 | Production technologies in Maize | 03 | 04 | 10 | 14 | 03 | 03 | 06 | 07 | 13 | 20 |
| 29-01-08 to 31-01-08 | Production technologies and plant protection measures in Horticulture crops | 03 | 37 | -- | 37 | 20 | -- | 20 | 57 | -- | 57 |
| 08-02-08 to 09-02-08 | Ornamental fishes to control mosquito menace | 02 | 08 | 25 | 33 | 01 | 02 | 03 | 09 | 27 | 36 |

C) Consolidated table (ON and OFF Campus)

Farmers and Farm Women

| Date | Title of the training programme | Duration in days | Number of participants (General) | | | Number of SC/ST | | | Total number of participants | | |
|----------|---|------------------|----------------------------------|--------|------|-----------------|-------|-------|------------------------------|--------|-------|
| | | | Male | Female | Male | Female | Total | Total | Male | Female | Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 06-10-07 | Role of Botanical s in IPM | 01 | 11 | -- | 11 | 04 | -- | 04 | 15 | -- | 15 |
| 07-10-07 | Integrated Crop Management in Cotton | 01 | 11 | -- | 11 | 05 | -- | 05 | 16 | -- | 16 |
| 11-10-07 | Integrated Crop Management in Groundnut | 01 | 26 | 04 | 30 | 07 | -- | 07 | 33 | 04 | 37 |
| 12-10-07 | ICM in Ragi | 01 | 03 | -- | 03 | 07 | 11 | 18 | 10 | 11 | 21 |
| 15-10-07 | Soil testing | 01 | 07 | -- | 07 | 01 | -- | 01 | 08 | -- | 08 |
| 27-10-07 | Introduction of Drudgery reducing equipments – Groundnut stripper | 01 | 06 | -- | 06 | -- | 07 | 07 | 06 | 07 | 13 |
| 30-10-07 | Harvesting and curing in Onion | 01 | 06 | 10 | 16 | 02 | 05 | 07 | 08 | 15 | 23 |
| 03-11-07 | Role of Pheromone traps and botanical pesticides in IPM of Red gram | 01 | 05 | 09 | 14 | -- | -- | -- | 05 | 09 | 14 |
| 03-11-07 | Importance of Ragi and Ragi malt preparation in daily diet | 01 | -- | 15 | 15 | -- | -- | -- | -- | 15 | 15 |
| 06-11-07 | Demonstration on preparation of Envelops of different sizes | 01 | -- | 15 | 15 | -- | -- | -- | -- | 15 | 15 |
| 07-11-07 | Seed treatment with Imidacloprid in Sunflower | 01 | 06 | 02 | 08 | -- | -- | -- | 06 | 02 | 08 |
| 14-11-07 | Role of Pheromone traps in controlling pod borer in red gram | 01 | 11 | -- | 11 | -- | -- | -- | 11 | -- | 11 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----------------------|--|----|----|----|----|----|----|----|----|----|----|
| 15-11-07 | Improved production technologies in Bengalgram | 01 | 30 | -- | 30 | -- | -- | -- | 30 | -- | 30 |
| 16-11-07 | Seed treatment with bio fertilizers | 01 | 30 | -- | 30 | -- | -- | -- | 30 | -- | 30 |
| 16-11-07 | Management of micro nutrients through COT in cabbage | 01 | 12 | -- | 12 | -- | -- | -- | 12 | -- | 12 |
| 01-12-07 | Role of micronutrients in Arecanut and Coconut production | 01 | 12 | -- | 12 | -- | -- | -- | 12 | -- | 12 |
| 05-12-07 | Role of pheromone traps in Management of pod borer in Bengalgram | 01 | 18 | -- | 18 | -- | -- | -- | 18 | -- | 18 |
| 05-12-07 to 07-12-07 | Integrated Crop Management in Sunflower | 03 | 15 | -- | 15 | 01 | -- | 01 | 16 | -- | 16 |
| 06-12-07 | Integrated Crop Management in Groundnut (GPBD-4) | 01 | 08 | -- | 08 | -- | -- | -- | 08 | -- | 08 |
| 12-12-07 to 13-12-07 | Production Technologies in Beans | 02 | 10 | -- | 10 | -- | -- | -- | 10 | -- | 10 |
| 19-12-07 to 21-12-07 | Processing and preservation of food crops – Agro-based enterprises for rural women | 03 | -- | 21 | 21 | -- | 27 | 27 | -- | 48 | 48 |
| 26-12-07 to 28-12-07 | Management of nursery in Rice | 03 | -- | 19 | 19 | -- | 05 | 05 | -- | 24 | 24 |
| 07-01-08 | Safe storage of Pulses | 01 | 03 | 04 | 07 | -- | -- | -- | 03 | 04 | 07 |
| 07-02-08 to 08-02-08 | Integrated Pest Management in Sunflower | 02 | 18 | 01 | 19 | 07 | 01 | 08 | 25 | 02 | 27 |
| 22-02-08 | Importance of gypsum in Groundnut and its utilization | 01 | 09 | 02 | 11 | 03 | -- | 03 | 12 | 02 | 14 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----------------------|--|----|----|----|----|----|----|----|----|----|----|
| 23-02-08 | Management of pest and diseases in Bengal gram | 01 | 28 | 05 | 33 | -- | 01 | 01 | 28 | 06 | 34 |
| 27-02-08 to 28-02-08 | Importance of nutrition management in Coconut | 02 | 10 | -- | 10 | 04 | -- | 04 | 14 | -- | 14 |
| 15-03-08 | Constraints in production technologies in arecanut | 01 | 19 | -- | 19 | -- | -- | -- | 19 | -- | 19 |
| 15-03-08 | Empowerment of women by agro based enterprises and marketing aspects | 01 | -- | 14 | 14 | -- | -- | -- | -- | 14 | 14 |
| 19-03-08 | Integrated fish farming in inland ponds | 02 | 19 | -- | 19 | 10 | -- | 10 | 29 | -- | 29 |
| 24-03-08 to 25-03-08 | Integrated inland fish aquaculture | 02 | 08 | -- | 08 | -- | -- | -- | 08 | -- | 08 |
| 24-03-08 to 25-03-08 | Prevention and control of foot and mouth disease in cattle | 02 | 18 | -- | 18 | 11 | -- | 11 | 29 | -- | 29 |
| 26-03-08 to 28-03-08 | Improved production technologies in potato cultivation | 03 | 17 | -- | 17 | 12 | -- | 12 | 29 | -- | 29 |
| 21-05-08 | Summer ploughing and importance of soil testing | 01 | 18 | -- | 18 | 05 | -- | 05 | 23 | -- | 23 |
| 21-05-08 | Improved production technologies in vegetable crops | 01 | 11 | -- | 11 | 04 | -- | 04 | 15 | -- | 15 |
| 22-05-08 | Integrated inland fish culture in farm ponds | 01 | 16 | 02 | 18 | 05 | -- | 05 | 21 | 02 | 23 |
| 26-05-08 | Improved production technologies in Maize, Rice and minor millets | 01 | 18 | 04 | 22 | 08 | -- | 08 | 26 | 04 | 30 |
| 27-05-08 | Integrated crop management in Cotton, importance of Farmers Field School | 01 | 15 | 05 | 20 | 10 | -- | 10 | 25 | 05 | 30 |
| 27-05-08 | Post harvest technologies in cereals and pulses | 01 | 02 | 11 | 13 | -- | -- | -- | 02 | 11 | 13 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------------------|--|----|----|----|----|----|----|----|----|----|----|
| 02-06-08 to 03-06-08 | Improved production technologies in ragi, maize and rice | 02 | 13 | 01 | 14 | -- | -- | -- | 13 | 01 | 14 |
| 18-06-08 | Micronutrients deficiency practices in vegetable crops | 01 | 29 | -- | 29 | -- | -- | -- | 29 | -- | 29 |
| 18-06-08 | Improved production technologies in minor millets and value products | 01 | 23 | -- | 23 | 07 | -- | 07 | 30 | -- | 30 |
| 19-06-08 | Improved cultivation practices in Onion and seed production technologies | 01 | 07 | -- | 07 | 05 | -- | 05 | 12 | -- | 12 |
| 20-06-08 | Introduction of new maize variety NAH- 2049 (Released by UAS-B) and its production technologies | 01 | 07 | -- | 07 | 01 | -- | 01 | 08 | -- | 08 |
| 05-07-08 and 06-07-08 | Preparation of soap powder and other home products | 02 | -- | 10 | 10 | -- | -- | -- | -- | 10 | 10 |
| 07-07-08 | Management of bud necrosis, black headed caterpillar and use of borax in sunflower | 01 | 09 | -- | 09 | 04 | -- | 04 | 13 | -- | 13 |
| 07-07-08 | Use of pheromone traps and management of nutrients in Cotton | 01 | 18 | -- | 18 | 02 | 02 | 04 | 20 | 02 | 22 |
| 12-07-08 | Fish farming in Rice fields- An alternative cropping system | 01 | 14 | 05 | 19 | 06 | -- | 06 | 20 | 05 | 25 |
| 16-07-08 | Integrated Inland Fish Culture | 01 | 07 | -- | 07 | 08 | 01 | 09 | 15 | 01 | 16 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------------|--|----|----|----|----|----|----|----|----|----|----|
| 18-07-08 and 19-07-08 | Improved cultivation practices and integrated pest management in redgram | 02 | 09 | 01 | 10 | 05 | -- | 05 | 14 | 01 | 15 |
| 18-07-08 | Importance of minor millets in daily diet and its value products | 01 | 10 | 09 | 19 | 04 | 02 | 06 | 14 | 11 | 25 |
| 22-07-08 and 23-07-08 | Cultivation of fodder crops and nutritional aspects | 02 | 21 | 03 | 24 | 02 | 01 | 03 | 23 | 04 | 27 |
| 01-08-08 and 02-08-08 | Improved agricultural practices in Sunflower | 02 | 08 | -- | 08 | 03 | -- | 03 | 11 | -- | 11 |
| 12-08-08 | Production technologies in Onion and pest management | 01 | 15 | -- | 15 | 07 | -- | 07 | 22 | -- | 22 |
| 21-08-08 and 22-08-08 | Fruits and vegetable processing and preservation | 02 | -- | 12 | 12 | -- | -- | -- | -- | 12 | 12 |
| 01-09-08 | Importance of planofix & micronutrient in cotton for higher yield | 01 | 18 | -- | 18 | 02 | -- | 02 | 20 | -- | 20 |

Rural Youth

| Date | Title of the training programme | Duration in days | Number of participants (General) | | Number of SC/ST | | | Total number of participants | | | |
|----------------------|---|------------------|----------------------------------|--------|-----------------|--------|-------|------------------------------|------|--------|-------|
| | | | Male | Female | Male | Female | Total | Total | Male | Female | Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 16-10-07 | Management of blast and BLB in Rice | 01 | 04 | 06 | 10 | 01 | -- | 01 | 05 | 06 | 11 |
| 20-01-08 to 22-01-08 | Improved cultivation practices in Horticultural crops | 03 | 13 | 10 | 23 | 06 | 01 | 07 | 19 | 11 | 30 |
| 20-01-08 to 22-01-08 | Production technologies in Maize | 03 | 04 | 10 | 14 | 03 | 03 | 06 | 07 | 13 | 20 |
| 29-01-08 to 31-01-08 | Production technologies and plant protection measures in Horticulture crops | 03 | 37 | -- | 37 | 20 | -- | 20 | 57 | -- | 57 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------------------|---|----|----|----|----|----|----|----|----|----|----|
| 03-02-08 and 04-02-08 | Improved cultivation practices in Maize | 02 | 23 | -- | 23 | 07 | -- | 07 | 30 | -- | 30 |
| 08-02-08 to 09-02-08 | Ornamental fishes to control mosquito menace | 02 | 08 | 25 | 33 | 01 | 02 | 03 | 09 | 27 | 36 |
| 08-02-08 and 09-02-08 | Larvicidal fishes to control mosquito menace | 02 | 08 | 25 | 33 | 01 | 02 | 03 | 09 | 27 | 36 |
| 28-02-08 to 01-03-08 | Improved cultivation practices in Maize and Coconut | 03 | 26 | 26 | 52 | -- | 07 | 07 | 26 | 33 | 59 |
| 24-04-08 and 27-04-08 | Post harvest technologies in Horticultural crops | 02 | 03 | 08 | 11 | 19 | -- | 19 | 22 | 08 | 30 |
| 20-06-08 and 21-06-08 | Lime application in aquaculture and waste recycling for sustainable environment | 02 | 01 | 07 | 08 | -- | -- | -- | 01 | 07 | 08 |
| 04-08-08 | Identifications of diseases in Cereals and Pulses & their management | 01 | 05 | 24 | 29 | -- | 05 | 05 | 05 | 29 | 34 |
| 17-08-08 | Nutrition management and balanced diet for dairy animals | 01 | 18 | 06 | 24 | 02 | -- | 02 | 20 | 06 | 26 |

Extension Personnel

| Date | Title of the training programme | Duration in days | Number of participants (General) | | Number of SC/ST | | | Total number of participants | | | |
|----------------------|---|------------------|----------------------------------|--------|-----------------|--------|-------|------------------------------|------|--------|-------|
| | | | Male | Female | Male | Female | Total | Total | Male | Female | Total |
| 17-01-08 to 19-01-08 | Processing of Ragi Maize and Soybean and their value added products | 03 | -- | 24 | 24 | -- | 09 | 09 | -- | 33 | 33 |

(D) Vocational training programmes for Rural Youth : Nil**(E) Sponsored Training Programmes****Farmers**

| Title | Thematic area | Month | Duration (days) | No. of courses | No. of Participants | | | | | | Sponsoring Agency | |
|--|--|-------------------------|-----------------|----------------|---------------------|-----------|------------|------------|------------|------------|-------------------|-----------------|
| | | | | | Male | | Female | | Total | | | |
| | | | | | Others | SC/ST | Others | SC/ST | Others | SC/ST | | Total |
| Vermi composting | Recycling of wastes | November 2007 | 03 | 01 | -- | -- | 62 | 56 | 62 | 56 | 118 | ZP, Davanagere |
| Sustainable Integrated Inland Fish aquaculture | Fish culture- An alternative cropping system | January & February 2008 | 10 | 02 | 44 | 06 | -- | -- | 44 | 06 | 50 | NFDB, Hyderabad |
| Clean milk production | Hygienic milk production | March 2008 | 01 | 20 | 368 | 31 | 163 | 74 | 531 | 105 | 636 | SHIMUL |
| Total | | | 23 | 23 | 412 | 37 | 225 | 130 | 637 | 167 | 804 | 23 |

Note : The details of sponsored training programmes were given in Annexure-II

Extension personnel

| Title | Thematic area | Month | Duration (days) | No. of courses | No. of Participants | | | | | | Sponsoring Agency | |
|--|--------------------------|----------------|-----------------|----------------|---------------------|-----------|-----------|-----------|-----------|-----------|-------------------|------------------|
| | | | | | Male | | Female | | Total | | | |
| | | | | | Others | SC/ST | Others | SC/ST | Others | SC/ST | | Total |
| Development of fish culture in different water structure | Aquaculture in watershed | September 2008 | 01 | 01 | 31 | 06 | 01 | -- | 32 | 06 | 38 | DWDO, Davanagere |
| Total | | | 01 | 01 | 31 | 06 | 01 | -- | 32 | 06 | 38 | |

3.4. Extension Programmes

For Farmers

| Nature of Extension Programme | No. of Programmes | No. of Participants (General) | | | No. of Participants SC / ST | | | Total | | |
|--|-------------------|-------------------------------|------------|-------------|-----------------------------|------------|------------|-------------|------------|-------------|
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Field Day | 10 | 178 | 68 | 246 | 115 | 26 | 141 | 293 | 94 | 387 |
| Exhibition | 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Film Show | 27 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Method Demonstrations | 75 | 462 | 171 | 633 | 185 | 72 | 257 | 647 | 243 | 890 |
| Farmers Seminar | 01 | 30 | -- | 30 | 26 | -- | 26 | 56 | -- | 56 |
| Workshop | 01 | 27 | 08 | 35 | 14 | 04 | 18 | 41 | 12 | 53 |
| Group meetings | 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Lectures delivered as resource persons | 10 | 300 | 125 | 425 | 167 | 27 | 194 | 467 | 152 | 619 |
| Newspaper coverage | 77 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Radio talks | 22 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| TV talks | 07 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Publications | 03 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Popular articles | 05 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Extension Literature | 12 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Scientific visit to farmers field | 165 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Farmers visit to KVK | 252 | 155 | 11 | 166 | 80 | 06 | 86 | 241 | 18 | 252 |
| Diagnostic visits | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Exposure visits | 05 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Agriculture camp | 02 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Animal Health Camp | 02 | 250 Animals treated | | | | | | | | |
| Self Help Group Conveners meetings | 06 | 30 | 21 | 51 | 13 | 14 | 27 | 43 | 35 | 78 |
| Mahila Mandals Conveners meetings | 01 | -- | 12 | 12 | -- | -- | -- | -- | 12 | 12 |
| Celebration of important days | | | | | | | | | | |
| World food day | 01 | 10 | 26 | 36 | -- | -- | -- | 10 | 26 | 36 |
| Women in agriculture day | 01 | -- | 45 | 45 | -- | 20 | 20 | -- | 65 | 65 |
| Kissan samman divas | 01 | 04 | 04 | 08 | -- | 08 | 08 | 04 | 12 | 16 |
| National science day | 01 | 20 | 20 | 40 | 13 | 06 | 19 | 33 | 26 | 59 |
| World kitchen garden day | 01 | 01 | 21 | 22 | -- | -- | -- | 01 | 21 | 22 |
| Parthenium awareness week | 01 | 11 | -- | 11 | 09 | -- | 09 | 20 | -- | 20 |
| Total | 728 | 1228 | 532 | 1760 | 622 | 183 | 805 | 1856 | 716 | 2572 |

Note: 1) The details of method demonstrations were given in Annexure-IV

2) The details of lectures delivered were given in Annexure-V

3) The details of TV programmes and radio talks were given in Annexure-VI

4) The details of Workshops/ Seminars/ Training were given in Annexure-VIII

3.5 Production and supply of technological products (2007-08)

SEED MATERIALS

| Sl. No. | Crop | Variety | Quantity (tons) | Value (Rs.) | Provided to No. of Farmers |
|------------------------|-----------|----------------|-----------------|-------------|----------------------------|
| Commercial crop | | | | | |
| 1 | Sugarcane | CO-VC-2003-165 | 12 | 18000 | 5 FLD farmers |
| 2 | Sugarcane | CO-86032 | 9 | 11700 | 5 FLD farmers |

BIO PRODUCTS :

| Sl. No. | Product Name | Species | Quantity | | Value (Rs.) | Provided to No. of Farmers |
|-----------------------|---------------------|----------|----------|------|-------------|----------------------------|
| | | | No. | (kg) | | |
| BIOFERTILIZERS | | | | | | |
| 1. Vermicompost | Vermicompost manure | Eudrulus | -- | 2500 | 7500 | 25 |

Livestock materials

| Sl.No. | Type | Bread | Quantity | | Value (Rs) | Provided to no. of farmers |
|-----------|-------------------|--|----------|-----|------------|----------------------------|
| | | | No.s | Kgs | | |
| Fisheries | Fingerlings | Rohu, Catla, Common carp | 23650 | -- | 6800 | 06 |
| | Ornamental fishes | Singapur Guppies, Red molly, Black molly | 46 | -- | 310 | 15 |

3.6. Literature Developed/Published

(A) KVK News Letter

| Date of start | Periodicity | No. of copies distributed |
|---------------|-------------|---------------------------|
| 01-01-2008 | Quarterly | 500 |
| 01-04-2008 | Quarterly | 500 |
| 01-07-2008 | Quarterly | 500 |

(B) Literature developed/published

| Item | Title | Compiled and edited by | Number |
|----------------------|--|---|-----------------|
| News letters | Taralabalu Krishi Sinchana (Kannada version) | Dr. Devaraja T.N. and Team | 1500 |
| Popular articles | Mother palm selection and propagation in Arecanut | Mr. Basavanagowda.M.G Dr. Devaraja T.N | 01 |
| | Dry land Horticulture | Mr. Basavanagowda.M.G Dr. Devaraja T.N, Dr. Ropa.S.Patil, Mr. Mallikarjuna B.O. and Kumari Kavitha P. | 01 |
| | Farmers suicide | Mr. Basavanagowda.M.G | 01 |
| | Pore trays- for quality vegetable seedlings | Mr. Basavanagowda.M.G Dr. Devaraja T.N | 01 |
| | Control of Chikkungunya using ornamental fishes | Dr. Devaraja T.N | 01 |
| Extension literature | <ul style="list-style-type: none"> • Improved cultivation practices in groundnut • IPM in Rice for BPH • ICM in Cotton • Production technology of Onion • Safe storage of pulses • Production technology of TLCV resistant varieties in tomato (Sankranti, Nandi, Vaibhav) • Management of BHC in Coconut • Groundnut stripper • Shoot & fruit borer in Brinjal IPM against | | 200 copies each |

C) Details of Electronic Media Produced

| S. No. | Type of media (CD / VCD / DVD / Audio-Cassette) | Title of the programme | Number |
|--------|---|--|--------|
| 1 | CD – Video | Management of BHC in Sunflower | 01 |
| 2 | | Ornamental Fish rearing | 01 |
| 3 | | Pore tray Nursery | 01 |
| 4 | | Effective land utilization | 01 |
| 5 | | Management of BHC in Coconut | 01 |
| 6 | | Sunflower production technology | 01 |
| 7 | | Management of button shedding and control of Black rot in Arecanut | 01 |
| 8 | CD – Audio | Bio Cotton | 01 |
| 9 | | Integrated inland fish farming for small farmers | 01 |

3.7. Success Stories

i) ICM in Cotton

During the year 2005-06, when we planned to conduct FLD under Cotton, there was no Cotton area in the district. As the farmers were frustrated with pest problem in Cotton crop and incidental shutdown of the cotton mills had aggravated the agony of Cotton growers. We approached the agriculture department officials of Harapanahalli taluk and decided to conduct FLD of cotton crop in few selected village. The villages selected for FLD were Budihal and Nandikamba. The farming situations in the villages are major area under rain fed and irrigation by bore well. KVK scientists and agriculture department conducted the brainstorming session in the villages. During the session the farmers expressed the incidence of pests and disease increased their cost of cultivation inturn reduced the net income as resulted in reduced cotton area. Farmers also told that ten years ago that they were growing cotton with few spray, but now minimum twenty sprays are required for cotton production. At this juncture scientists interacted and explained the concepts of ICM and IPM in cotton.

During 2005-06 farmers were selected and convinced to grow the cotton. At the end of the season, farmers had expressed that if they had not grown the cotton, they would have been deep trouble. The reason is that the expected rain did not occur during the critical stages of the crops. The Scientists from ZCU, ICAR and host institution management committee members had visited the cotton plots and interacted with the farmers. The farmers who had grown maize, harvested 15 q/ha which fetched them Rs 9750/- gross income when compared to the cotton farmers fetched 14 q/ha (Rs 35000/-).

Next year 2006-07, farmers themselves came forward for cotton production. Under FLD 50 acres of Cotton production taken by in the same villages, and currently the area in the villages has increased from zero to 350 acres. Agriculture department and KVK jointly had conducted FFS very effectively with regular classes and field visits. During this year, farmers harvested about 15q/ha which fetched higher income.

Impact :

| Particulars | Before | After |
|-----------------------|--|--|
| Horizontal spread | Area – 0 ha. | Area – 1000 ha. |
| Economic gains | Rs. 7500/ha. By growing maize | Rs. 35000/ ha |
| Employment generation | Migration of labourers for near cities | More number of labourers required for picking of cotton and migration is reduced |

ii) Onion:

Onion is the main vegetable crop growing in Honnali taluk of the District. Up to 2007-08 farmers were growing local varieties in onion viz., Honnali red and satara red. Those varieties are having lower productivity levels and more susceptible to purple blotch disease. Farmers from Honnali taluk who visited our KVK in one of the training programmes expressed their opinion about onion crop and they urged KVK scientists to take up some useful demonstrations in the taluk.

KVK scientists selected Arundi village of Honnali taluk for demonstration purpose by contacting Raitha Samparka Kendra, Nyamathi. Totally ten farmers selected for demonstration. The technology selected was demonstration of purple blotch resistant variety Arka Kalyan. Regular training programmes, method demonstrations, field visits, were conducted by KVK scientists. During the cropping period no purple blotch incidence in the demo plot was observed unlike in local check. This helped the farmers to reduce their cost incurred on spray of plant protection chemicals. Farmers with local variety got around 70 q/ha where as farmers with Arka Kalyan got 115 q/ha. There is considerable (47.81 %) increase in yield was observed compared to local check. Farmers expressed good opinion about the variety and decided to produce more of this variety in future.

In the next rabi season farmers had taken up seed production of the same variety (Arka Kalyan) with the technical assistance from KVK scientists. The seeds of Arka Kalyan produced by few farmers (7 No.) were distributed among the farmers of the village. During this kharif 2008-09, the 70% of the total onion crop area (100 acres) of the village is under Arka Kalyan. The area expansion in this variety has indicated successful demonstration of the technology by KVK scientists.

iii) Groundnut stripper – A technology in women drudgery reduction

Groundnut is an important crop among oilseeds in the district. Its production in India is 80 lakhs ton and in Karnataka is about 7.69 lakhs ton i.e. about 10% (2005-06). Important post harvest operation in groundnut is separation of pods from the plants which is generally carried out by women. The traditional method of separating groundnut is drudgery prone, time and labour intensive. Since this operation is performed manually, it causes physical and mental fatigue and other health problems especially severe pain in fingers. Here, farmers are also forced to bear extra amount for labourers. Considering the above problems, an alternative technology has been developed i.e. Groundnut stripper (CIAE, Bhopal), which is useful in separating more pods about 60-70 kg per hour at a time by four members. Here there is a possibility to modify the equipment by farmers according to their needs depends upon their groundnut production. In case of Self Help Groups, they can have big size equipment and can earn money by giving other groundnut growers of the same village on daily rental basis. Hence groundnut pods can be separated by cheap and safer means. Moreover that would be stored or preserved and safeguard from natural calamities.

A small group of women of the Mallenahalli village, Davanagere taluk and Kechenahalli of Jagalur taluk were selected by Taralabalu Krishi Vigyan Kendra and demonstrated the Groundnut Stripper. Women folk of agricultural labourers showed special interest towards this equipment and most of them liked this technology and accepted because the labourers get wage amount depending on the quantity of the pods they separate. Hence using this equipment there is a possibility to earn extra money per day. Thus, farm women perceived that, this equipment is drudgery reducing, more efficient, advantageous in terms of increased output thus time saving compared to traditional method of stripping. The same information was spread to many people and at present women groups from 4-5 villages are adopting this technology and solved labour problem.

3.8. Details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year

- **Agri camps (2 Nos.) :** Taralabalu Krishi Vigyan Kendra is conducting Agri camps in the border villages of the district through farmer – scientist interaction. During camp, scientists have made field visit to the problematic plots and gave the solutions on spot, conducted trainings and mainly focused towards soil health, fertilizer calculation based on soil test application to the crops. Through this agri camp we are gathering all the farmers together and make the farmers to take more interest in the farming activity and avoid the migration of rural youths towards the town.
- **FFS :** Farmers Field School is a tool to gather the farmers together from sowing to harvesting for a particular crops in a season. We are conducting FFS in Cotton at Budihal of Harapanalli taluk.
- **Radio talks (22 Nos.) :** Taralabalu Krishi Vigyan Kendra scientists gave radio talks on the problems prevailing in the district. Through this we have reached large number of farmers in a short span of time.
- **Television (7 Nos.) :** The technical interventions for burning problems of the major crops are disseminated through TV shows by the scientists. So these technologies will be tried by the large number of farmers in the district and other areas.

3.9 Details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development.

| S. No. | Crop / Enterprise | ITK Practiced | Purpose of ITK |
|--------|-------------------|--|--|
| 1 | Plant protection | Use of lemon and shampoo in spraying | <ul style="list-style-type: none"> • Shampoo helps in better spreading of spray solution • Lemon helps in neutralizing the P^H of water |
| 2 | Fisheries | Use of wooden blocks, big stone blocks and thorns in fish pond | <ul style="list-style-type: none"> • To curtail poaching in fish culture ponds broken wooden pieces can be planted in the middle of the pond emerging on the surface. • Big stone blocks and thorns to avoid easy dragging of pond bottom. |
| 3 | Pulses | Mixing of dry neem leaves with pulses | <ul style="list-style-type: none"> • Neem leaves act as repelling agent for insects. |

3.10 Specific training need analysis tools/methodology followed for

| | |
|---|--|
| Identification of courses for farmers/farm women | Linkages with line departments, field visits, group discussions, diagnostic surveys, problem cause analysis, Participatory Rural Appraisal (PRA) |
| Rural Youth | Field visits, diagnostic survey, questionnaires, group discussions, PRA, field visits to problematic area |
| In service personnel | Through line departments and direct contact |

3.11 Field activities

- i. Number of villages adopted : 15
- ii. No. of farm families selected : 25
- iii. No. of survey/PRA conducted : 03

3.12. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab:

1. Year of establishment : Building construction completed
2. List of equipments purchased with amount : Lab yet to establish.
3. Details of samples analyzed so far:

| Details | No. of Samples analyzed | No. of Farmers benefited | No. of Villages | Amount realized (Rs.) |
|---------------|-------------------------|--------------------------|-----------------|-----------------------|
| Soil Samples | 333 | 186 | 53 | 26754-00 |
| Water Samples | 62 | 40 | 25 | 1500-00 |
| Plant samples | -- | -- | -- | -- |
| Total | 395 | 226 | 78 | 28254-00 |

3.1. Details of samples analyzed during 2007-08 :

| Details | No. of Samples analyzed | No. of Farmers benefited | No. of Villages | Amount realized (Rs.) |
|---------------|-------------------------|--------------------------|-----------------|-----------------------|
| Soil Samples | 104 | 104 | 10 | 10685-00 |
| Water Samples | 05 | 05 | 05 | 150-00 |
| Plant samples | -- | -- | -- | -- |
| Total | 109 | 109 | 15 | 10835-00 |

4.0 IMPACT

4.1 Impact of KVK activities

| Name of specific technology/skill transferred | No. of participants | % of adoption | Change in income (Rs.) | |
|---|---------------------|---------------|--|--|
| | | | Before | After |
| Compositing method | 635 | 85 | Rs. 2000-00 | Rs. 5300-00 |
| Pheromone trap installation in Cotton | 47 | 79 | -- | Rs. 24675-00 |
| Groundnut decorticator | 77 | 50 | 1.5 kg seeds/hr | 10 kg seeds/hr |
| Clean Milk Production | 636 | 60 | 200 / Day / HF Cow 45 / Day / Local | 280 / Day / HF Cow 70 / Day / Local |

4.2. Cases of large scale adoption: NIL

4.3 Details of impact analysis of KVK activities carried out during the reporting period: NIL

5.0 LINKAGES

5.1 Functional linkage with different organizations

| Name of Organization | Nature of Linkage |
|---|---|
| University of Agricultural Sciences, Bangalore and Dharawad | Technology transfer, Knowledge update, Bi monthly meeting. |
| Indian Institute of Horticulture Research, Bangalore | Trainings, Supply of seed materials. Technical support. |
| Department of Agriculture | Trainings to farmers, field visits, Bi monthly meeting. Agriculture surveying |
| Department of Horticulture | Trainings to farmers, field visits, diagnostic survey |
| Department of Fisheries | Trainings to farmers, field visits |
| Department of Forestry | Supply of Forest seedlings |
| Department of Women and Child Welfare | Trainings to SHG s and Anganawadi workers. |
| Karnataka State Seed Corporation | Supply of seed materials for FLDs |
| Department of Social Welfare | Programme Participation |
| Karnataka Oil seeds federation | Supply of seed materials for FLDs and Trainings to farmers |
| District Statistical Information Centre | Collection of Basic information of the district |
| KRVP, Bangalore | Environmental Awareness Campaign Programme |
| Canara bank, State Bank of India, Shiva Sahakari Bank | SHGs A/C and KVK A/C |
| Department of Animal Husbandry and veterinary science | Conducting animal health camps |
| Shimoga Milk Union LTD, Shimoga | Conducting Andholana on 'Clean Milk Production |

5.2 Special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies

| Name of the scheme | Date/ Month of initiation | Funding agency | Amount (Rs.) |
|---------------------------|---------------------------|---|--------------|
| SGSY, GoK | 26-11-07 to 28-11-07 | ZP, Davanagere | 60000-00 |
| Biodiversity conservation | 12-03-08 and 13-03-08 | KRVP, Bangalore | 5000-00 |
| Clean milk production | March 2008 | SHIMUL, Shimoga | 50000-00 |
| Fisheries development | 08-09-08 | Dept. Watershed Development Office and ZP, Davanagere | 14500-00 |

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district : Yes

- Technical meeting and orientation meeting for farmers and officers have been completed
- SREP preparation is in progress
- Villages have been short listed – Hedne, Davanagere taluk
Nittur, Harihara taluk
Kengalalli, Honnali taluk
Bendikere, Harapanalli taluk

5.4 Details of programmes implemented under National Horticultural Mission : Non NHM district**5.5 Nature of linkage with National Fisheries Development Board**

| S. No. | Programme | Nature of linkage | Amount (Rs.) |
|--------|--|---|--------------|
| 1 | Sustainable integrated inland fish aquaculture | Training programmes (January & February 2008) | 1,39,500-00 |

6. PERFORMANCE OF INFRASTRUCTURE IN KVK**6.1 Performance of demonstration units (other than instructional farm)**

| Sl. No. | Demo Unit | Year of estt. | Area | Details of production | | | Amount (Rs.) | | Remarks |
|---------|-------------------------|---------------|---------|-----------------------|---------|------|----------------|--------------|--|
| | | | | Variety | Produce | Qty. | Cost of inputs | Gross income | |
| 1 | Vermicompost | 2008 | 1 gunta | Euduralis speices | -- | -- | -- | -- | Newly established unit with 8 tanks with a size of 4 ¹ x 2 ¹ x 20 ¹ |
| 2 | Organic Arecanut garden | 2008 | 2 acres | Thirthahalli local | -- | -- | -- | -- | Demonstrating different intercrops like drumstick, Banana, Maize, Papaya |

6.2 Performance of instructional farm (Crops) including seed production

| Name of the crop | Date of sowing | Date of harvest | Area (ha) | Details of production | | | Amount (Rs.) | | Remarks |
|------------------------|----------------|---------------------------------|-----------|--------------------------|-----------------|-------------------|----------------|--------------|---------|
| | | | | Variety | Type of Produce | Qty. (qtl.) | Cost of inputs | Gross income | |
| Cereals | | | | | | | | | |
| Rice | 25-05-07 | 18-11-07 | 01 | Tanu | Seeds | 38.8 | 25650 | 40433 | -- |
| Maize | 10-05-07 | -- | 1.25 | Private Hybrid | Seeds | -- | -- | -- | -- |
| Pulses | | | | | | | | | |
| Redgram | 25-06-07 | 15-02-08 | 0.5 | JS-1 | Seeds | 1.5 | 3260 | 2380 | -- |
| Fibers | | | | | | | | | |
| Cotton | 19-07-07 | 2 nd week of January | 0.4 | MRC-6918 | Lint | 4.53 | 1960 | 5290 | -- |
| Fruits | | | | | | | | | |
| Mango | 1998 | April 2007 | 02 | Alfonso | Fruit | 5.56 | 875 | 5310 | -- |
| Vegetables | | | | | | | | | |
| Tomato | 23-03-07 | July | 1 gunta | Private hybrid | Fruit | 5.71 | 785 | 4011 | -- |
| Chilli | 25-03-07 | June & July | 2 gunta | Private hybrids | Fruit | 3.70 | 750 | 260 | -- |
| Commercial crop | | | | | | | | | |
| Sugarcane | Oct. – 2006 | Nov. - 2007 | 0.6 | CO-7804 | Cane | 108.78 | 60000 | 81637 | -- |
| Sugarcane | 25-07-07 | 13-08-08 | 1 gunta | CO-VC-2003-065 | Sets | 120 | 10000 | 18000 | -- |
| Fisheries | -- | -- | 0.5 gunta | Common carp, Catla, Rohu | Fingerlings | 15000 fingerlings | 1500 | 6800 | -- |

6.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,) - NIL**6.4 Performance of instructional farm (livestock and fisheries production)**

| Sl. No | Name of the animal / bird / aquatics | Details of production | | | Amount (Rs.) | | Remarks |
|--------|--------------------------------------|---|-----------------|--------|----------------|--------------|---|
| | | Breed | Type of Produce | Qty. | Cost of inputs | Gross income | |
| 1 | Heifers, Bull, Bullocks | Hallikar | -- | -- | -- | -- | These animals are maintained for the cultivation, preparation of vermicompost manure, jeevamrutha and manure for the farm |
| 2 | Fodder crops | CO-3 Cuttings | -- | 9000 | 500 | 1800 | Fodder cuttings provided to FLD beneficiaries. |
| 3 | a) Indian major carps | Catla, Catla catla Rohu, Labeo rohita | Fingerlings | 23,650 | 1500 | 6800 | These fishes are given to FLD farmers. |
| | b) Chinese carp | Common carp, Cyprinus species | | | | | |
| | c) Ornamental fishes | Redmolly Blackmolly Guppy Gambusia Sowrd tail | Fish fry | 99 | -- | 640 | Ornamental fishes sold for aquarium enthusiasts |

6.5 Utilization of hostel facilities - NIL

7.0 Database management:

Database on extension activities, exposure visits and trainings are in progress. Compilation of data on FLD, OFT and other activities is in progress.

8.0 Details on Rain Water Harvesting structure and micro irrigation system - NIL**9. FINANCIAL PERFORMANCE****9.1 Details of KVK Bank accounts**

| Bank account | Name of the bank | Location | Account Number |
|---------------------|------------------|------------|--------------------------------|
| With Host Institute | Canara bank | Davanagere | SB A/c: 9860 |
| With KVK | Canara bank | Davanagere | SB A/c: 10144 SB A/c: 10145 |

9.2 Utilization of funds under FLD on Oilseed (Rs. in Lakh)

| Item | Released by ICAR | | Expenditure | | Unspent balance as on 31-03-2008 |
|----------------------|------------------|---------------|--------------|--------------|----------------------------------|
| | Kharif 2007 | Rabi 2007 -08 | Kharif 2007 | Rabi 2007-08 | |
| Inputs | 31944 | 52500 | 12175 | 27100 | 45169 |
| Extension activities | 4750 | 7500 | 1750 | 4257 | 6243 |
| TA/DA/POL etc. | 7125 | 11250 | 2625 | 11248 | 4502 |
| TOTAL | 43819 | 71250 | 16550 | 42605 | 55914 |

Closing balance as on 31-03-2008: Rs. 28700-00

9.3 Utilization of funds under FLD on Pulses (Rs. in Lakh)

| Item | Released by ICAR | | Expenditure | | Unspent balance as on 31-03-2008 |
|----------------------|------------------|---------------|--------------|---------------|----------------------------------|
| | Kharif 2007 | Rabi 2007 -08 | Kharif 2007 | Rabi 2007 -08 | |
| Inputs | 9100 | 52500 | 8559 | 43870 | 9171 |
| Extension activities | 1300 | 7500 | 1275 | 1515 | 6010 |
| TA/DA/POL etc. | 1950 | 11250 | 1950 | 11250 | 0 |
| TOTAL | 12350 | 71250 | 11784 | 56635 | 15181 |

Closing balance as on 31-03-2008 : Rs. -8113-00

9.4 a. Utilization of funds under FLD on Cotton (Production technology)

| Item | Released by ICAR | | Expenditure | | Unspent balance as on 31-03-2008 |
|---|------------------|---------------|-------------|---------------|----------------------------------|
| | Kharif 2007 | Rabi 2007 -08 | Kharif 2007 | Rabi 2007 -08 | |
| Cotton 50 acres | | | | | |
| Essential Inputs @ Rs.1400 Per Demon. Per Acre | -- | 69000 | -- | 66717 | 2283 |
| POL/Veh. Hiring / Meals / Printed Materials, etc. @ Rs.600/Acre | -- | 30000 | -- | 29890 | 110 |
| TOTAL | -- | 99000 | 0 | 96607 | 2393 |

Closing balance as on 31-03-2008 : Rs. 3024-00

9.4 b. Utilization of funds under FLD on Cotton (Farm implements)

| Item | Released by ICAR | | Expenditure | | Unspent balance as on 31-03-2008 |
|---|------------------|---------------|-------------|---------------|----------------------------------|
| | Kharif 2007 | Rabi 2007 -08 | Kharif 2007 | Rabi 2007 -08 | |
| Cotton 50 acres | | | | | |
| Purchase of New Equip.s | -- | 100000 | -- | 99400 | 600 |
| Contingency for Demon. of already provided equipments | -- | -- | -- | -- | -- |
| TOTAL | -- | 100000 | -- | 99400 | 600 |

Closing balance as on 31-03-2008 : Rs. 600-00

9.5 a. Utilization of KVK funds during the year 2007 -08 (Previous year) (Rupees)

Opening balance as on 01-04-2007 : 81336-00

| Sl. No. | Particulars | Sanctioned | Released | Expenditure |
|----------|--|----------------|----------------|----------------|
| A | Recurring Items : | | | |
| 1 | Pay & Allowance | 3000000 | 2918665 | 2369343 |
| 2 | Traveling Allowances | 100000 | 100000 | 99810 |
| 3 | Contingencies : | 700000 | 700000 | 626302 |
| i | Office Contingency | 217000 | 217000 | 216999 |
| ii | POL/Repair of Vehicles | 140000 | 140000 | 139996 |
| iii | Stipend / Meals for Trainees | 91000 | 91000 | 84722 |
| iv | Teaching / Demonstration Materials | 84000 | 84000 | 78845 |
| v | FLD (Other than Oilseeds & Pulses) | 88000 | 88000 | 66899 |
| vi | OFT | 42000 | 42000 | 27330 |
| vii | Training to Extension Functionaries | 28000 | 28000 | 3360 |
| viii | Maintenance of Buildings | | | |
| ix | Est. of Soil, Plant & Water Testing Lab. | | | |
| x | Maintenance of Library | 10000 | 10000 | 8151 |
| | Total - 'A' | 3800000 | 3718665 | 3095455 |
| B | Non Recurring Items : | | | |
| 1 | Works | 2776000 | 2776000 | 2776000 |
| i | Administrative Building | 1613000 | 1613000 | 1613000 |
| ii | Farmers Hostel | 242000 | 242000 | 242000 |
| iii | Staff Quarters | 921000 | 921000 | 921000 |
| 2 | Office Furniture | 500000 | 500000 | 500000 |
| 3 | Establishment of Library | | | |
| | Total - 'B' | 3276000 | 3276000 | 3276000 |
| | TOTAL (A + B) | 7076000 | 6994665 | 6371455 |
| | Closing Balance as on 31.03.2008 | | | 704546 |

9.5 b. Utilization of KVK funds during the year 2008 -09 (Upto September-2008) (Rupees)

Opening balance as on 01-04-2008 : 704546-00

| Sl. No. | Particulars | Sanctioned | Released | Expenditure |
|----------|--|----------------|---------------|-------------------|
| A | Recurring Items : | | | |
| 1 | Pay & Allowance | 2500000 | 716250 | 1035815.00 |
| 2 | Traveling Allowances | 100000 | 28650 | 85225.00 |
| 3 | Contingencies : | 700000 | 200550 | 229769.00 |
| i | Office Contingency | 210000 | 60165 | 98745.00 |
| ii | POL/Repair of Vehicles | 110000 | 31515 | 69286.00 |
| iii | Stipend / Meals for Trainees | 90000 | 25785 | 18164.00 |
| iv | Teaching / Demonstration Materials | 80000 | 22920 | 8603.00 |
| v | FLD (Other than Oilseeds & Pulses) | 100000 | 28650 | 28850.00 |
| vi | OFT | 60000 | 17190 | 2900.00 |
| vii | Training to Extension Functionaries | 20000 | 5730 | 0.00 |
| viii | Maintenance of Library | 10000 | 2865 | 3221.00 |
| ix | Est. of Soil, Plant & Water Testing Lab. | | | |
| x | Farmers Field School | 20000 | 5730 | |
| | Total - 'A' | 3300000 | 945450 | 1350809.00 |
| B | Non Recurring Items : | | | |
| 1 | Works | 0 | 0 | 0.00 |
| 2 | Furniture / Fixture / Fittings | 0 | 0 | 0.00 |
| 3 | Establishment of Library | 0 | 0 | 0.00 |
| | Total - 'B' | 0 | 0 | 0.00 |
| | TOTAL (A + B) | 3300000 | 945450 | 1350809.00 |
| | Closing Balance as on 30.09.2008 | | | 299187 |

9.6 Status of revolving fund (Rs. in lakh) for the three years

| Year | Opening Balance as on 1.04.2004 | Income During the Year | Expenditure During the Year | Net Balance in Hand as on 1st April of each Year |
|------------------------------|---------------------------------|------------------------|-----------------------------|--|
| April 2004 To March 2005 | 0.000 | 1.000 | 0.000 | 1.000 |
| April 2005 To March 2006 | 1.000 | 0.008 | 0.681 | 0.327 |
| April 2006 To March 2007 | 0.327 | 2.203 | 1.977 | 0.553 |
| April 2007 To March 2008 | 0.553 | 6.142 | 6.277 | 0.418 |
| April 2008 To September 2008 | 0.418 | 3.400 | 3.555 | 0.263 |

10.0 Information which has not been reflected above.**1. Farmers Field School :**

Introduction: Farmers Field School (FFS) is one of the established participatory methods of effective learning. FS was considered as an effective and comprehensive non-formal educational method to teach and technically empower the adult farmers and farm women.

FFS mainly include three categories of actors and they are

- a) FFS participants : Farmers selected by the villagers.
- b) Collaborator : Is a farmer or farm women who gives the land for conducting field studies.
- c) Facilitator : Technically competent person to lead the members through the hands on exercise.

KVK is conducting FFS on Integrated Crop Management in Cotton.

Crop : Cotton

Area : 1 acre

Technology : Integrated Crop Management in Cotton

Area : 0.5 acre (Demonstration)

Area : 0.5 acre (Farmer's practice)

Collaborator : Mr. Naganna

Participants : 25 No.

Facilitator : Scientist

Place : Budihal, Harapanahalli (Tq)

| Sl. No. | Date | Activities | No. of participants |
|---------|----------|---|---------------------|
| 1 | 29-05-08 | <ul style="list-style-type: none"> • Selection of farmers, facilitator and crop. • Importance of FFS • Critical inputs rules and regulation of FFS | 25 |
| 2 | 05-06-08 | <ul style="list-style-type: none"> • Agro Ecological Situation • Seed treatment against sucking pest • Planting method, spacing • Importance of soil testing and fertilizer application. | 25 |
| 3 | 21-07-08 | <ul style="list-style-type: none"> • Agro Ecological Situation • Pheromone trap installation • Sucking pest identification and nature of damage | 23 |
| 4 | 21-08-08 | <ul style="list-style-type: none"> • Agro Ecological Situation • Use of micronutrient and demonstration on the farmers field • Identification of disease and pest symptoms • Use of planofix (Growth regulator) | 20 |
| 5 | 18-09-08 | <ul style="list-style-type: none"> • Agro Ecological Situation • Exposure visit to KVK Cotton field | 20 |

2. Establishment of Agro forestry demo unit in KVK farm :

| Sl.No. | Crop | No. of plants |
|--------|---------------|---------------|
| 1 | Silver oak | 300 |
| 2 | Teak | 250 |
| 3 | Papaya | 10 |
| 4 | Singpur chery | 10 |
| 5 | Neem | 25 |
| 6 | Anola | 60 |
| 7 | Jack fruit | 25 |
| 8 | Rose wood | 100 |
| 9 | Tamarind | 50 |
| 10 | Bael | 20 |
| 11 | Bamboo | 50 |
| 12 | Pongemia | 50 |

SUMMARY TABLES

1 Details of Technology assessment and refinement

Table 1A: Abstract on the number of technologies assessed in respect of crops

| Thematic areas | Cereals | Oilseeds | Pulses | Commercial Crops | Vegetables | Fruits | Flower | Plantation crops | Tuber Crops | TOTAL |
|--------------------------------|-----------|-----------|-----------|------------------|------------|-----------|-----------|------------------|-------------|-----------|
| Integrated Nutrient Management | 01 | -- | -- | 01 | 01 | -- | -- | -- | -- | 03 |
| Integrated Disease Management | -- | -- | -- | -- | 01 | -- | -- | -- | -- | 01 |
| TOTAL | 01 | -- | -- | 01 | 02 | -- | -- | -- | -- | 04 |

2. Details of Frontline Demonstrations

Table – 2 A Front Line Demonstrations on Oilseed Crops

| Crop/ Variety | Technology Demonstrated | No. of Farmers | Area (ha.) | Demo. Yield | Local Check | Increase in yield (%) | Data on parameter in relation to technology demonstrated | | Average Net Return (Profit) (Rs./ha) | Benefit- Cost Ratio (Gross Return / Gross Cost) |
|---------------------------------|----------------------------------|-------------------|---------------|----------------|----------------|-----------------------------|--|------------------------------|--|---|
| | | | | | | | Demo | Local | | |
| Groundnut (Kharif) GPBD-4 | Integrated Crop Management | 12 | 5.0 | 18.20 | 12.50 | 45.60 | 9.3 cm 35 pods | 9.0 cm 21 pods | 19067-00 | 2.13 |
| Groundnut (Rabi) GPBD-4 | Integrated Crop Management | 08 | 5.0 | 16.40 | 10.50 | 56.10 | 16.6 cm 27 pods | 10.2 cm 19 pods | 17100-00 | 1.91 |
| Hybrid Sunflower KBSH-41 | Integrated Crop Management | 23 | 10 | 15.27 | 12.23 | 24.00 | 102.7 cm 12 cm head 4-5% | 98.3 cm 11.2 cm 15.20% | 26310-00 | 2.34 |

Parameter : Plant height, No. of pods, Size of head and % of incidence

Table – 2 B Front Line Demonstrations on Pulse Crops

| Crop | Technology Demonstrated | No. of Farmers | Area (ha.) | Demo. Yield | Local Check | Increase in yield (%) | Data on parameter in relation to technology demonstrated | | Average Net Return (Profit) (Rs./ha) | Benefit-Cost Ratio (Gross Return / Gross Cost) |
|------------------|----------------------------|----------------|------------|-------------|-------------|-----------------------|--|--|--------------------------------------|--|
| | | | | | | | Demo | Local | | |
| Redgram (BRG-1) | Integrated Pest Management | 10 | 5.0 | 6.86 | 5.60 | 29.0 | 204 cm 104 pods 5% pod borer | 184.9 cm 87.5 pods 15% pod borer | 5990-00 | 2.39 |
| Bengalgram (A-1) | Integrated Pest Management | 30 | 15 | 5.34 | 3.90 | 36 | 36.8 cm 3-4% pod borer | 29.7 cm 16% pod borer | 8185-00 | 2.25 |

Parameter : Plant height, No. of pods and % of incidence

Table – 2 C Front Line Demonstrations on Cereals

| Crop | Technology Demonstrated | No. of Farmers | Area (ha.) | Demo. Yield | Local Check | Increase in yield (%) | Data on parameter in relation to technology demonstrated | | Average Net Return (Profit) (Rs./ha) | Benefit-Cost Ratio (Gross Return / Gross Cost) |
|-------------------|--------------------------------|----------------|------------|-------------|-------------|-----------------------|--|---|--------------------------------------|--|
| | | | | | | | Demo | Local | | |
| Maize NAC – 6004 | Integrated Nutrient Management | 12 | 5.0 | 41.25 | 44.0 | -- | 170.12cm 379 seeds/cob 12 rows/cob | 169.10cm 386 seeds/cob 14 rows/cob | 12175-00 | 1.90 |
| Hybrid Rice KRH-2 | Integrated Pest Management | 03 | 20 | 63.66 | 46.0 | 38.39 | Stem borer 2% Incidence Chaffy 5% | Stem borer 20% Incidence Chaffy 20% | 22804-00 | 2.23 |
| Ragi GPU-28 | Integrated Crop Management | 24 | 10.0 | 22.0 | 14.0 | 57.14 | 86.60 cm 4.5 ear head | 75.40 cm 2.5 ear head | 7060-00 | 1.98 |

Parameter : Plant height, No. of seeds/cob, No. of ear head/plant and % of incidence

Table – 2 D Front Line Demonstrations on Commercial crops

| Crop | Technology Demonstrated | No. of Farmers | Area (ha.) | Demo. Yield | Local Check | Increase in yield (%) | Data on parameter in relation to technology demonstrated | | Average Net Return (Profit) (Rs./ha) | Benefit-Cost Ratio (Gross Return / Gross Cost) |
|--|----------------------------|----------------|------------|-------------|-------------|-----------------------|---|-----------|--------------------------------------|--|
| | | | | | | | Demo | Local | | |
| Bt Cotton RCHB-708 MRC-6918 | Integrated Crop Management | 24 | 9.6 | 16.87 | 11.01 | 53.36 | 193.20 cm | 193.20 cm | 24675 | 2.41 |
| | | 26 | 10.4 | 18.37 | 11.01 | 67.00 | 83 bolls 200.10 cm 95 bolls | 43 bolls | 28425 | 2.62 |
| Fisheries (Catla, Rohu, Mrigal, Silver carp) | Integrated Fish Farming | 06 | 1.2 | 40.0 | -- | -- | AV.Wt.of Fish 0.55 kg Fish production and income generation is more than the popular crops of the district maize and Paddy | | 64427 | 1.69 |

Table – 2 E Front Line Demonstrations on Horticulture crops

| Crop | Technology Demonstrated | No. of Farmers | Area (ha.) | Demo. Yield | Local Check | Increase in yield (%) | Data on parameter in relation to technology demonstrated | | Average Net Return (Profit) (Rs./ha) | Benefit-Cost Ratio (Gross Return / Gross Cost) |
|--------------------------------|--|----------------|------------|-------------|-------------|-----------------------|--|--------------------------------------|--------------------------------------|--|
| | | | | | | | Demo | Local | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Brinjal | Integrated pest management | 05 | 1.0 | 123.7 | 84.6 | 46.4 | 40 fruits 2-3% shoot & fruit borer | 34 fruits 25% shoot & fruit borer | 31480-00 | 2.75 |
| Cauliflower | Integrated pest management | 05 | 1.0 | 14.10 t | 11.85 t | 35.39 | 3-4% incidence DBM | 30% incidence DBM | 42678-00 | 3.76 |
| Tomato Sankranti Nandi Vaibhav | Production technology of TLCV resistant varieties | 10 | 2.0 | 149.7 | 122.5 | 22.20 | Per. germination 73.2 Per. incidence of TLCV A | 61.5 B | 54400-0 | 2.55 |
| Onion | Production technology of purple blotch resistant variety | 10 | 2.0 | 115.0 | 77.0 | 47.81 | Percent incidence of purple blotch A Percent germination 84.6 | B 69.8 | 63750-00 | 3.83 |
| French bean | Production technology of HYV | 05 | 1.0 | 149.1 | 111.8 | 22.41 | No. of days to germinate 11 | 16 | 24980-00 | 2.26 |
| Potato | Production technology | 05 | 1.0 | 112.9 | 82.6 | 36.68 | Percent emergence 82.6 No. of tubers/plant 7.5 | 71.2 4.8 | 49215-00 | 2.05 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|--------------------------------|----|-----|-----|----|-------|---|---------|----|----|
| Areca nut (No. of inflorescence per palm) | Integrated Nutrient Management | 05 | 1.0 | 4.4 | 02 | 100 | No of inflorescence/ palm 4.4 Percent incidence of button shedding B | 02 C | -- | -- |
| Coconut (No. of nut per palm) | Integrated Nutrient Management | 05 | 1.0 | 74 | 48 | 54.16 | No. of nuts/ palm 74 Percent incidence of button shedding B | 48 C | -- | -- |

Table – 2 F Front Line Demonstrations on Other enterprises

| Enterprise | Variety/ breed /Species/others | No. of farmers | No. of Units | Size of Unit | Parameter indicators | Data on parameter in relation to technology demonstrated | | % change in the parameter | Remarks |
|-------------------|--------------------------------|----------------|--------------|--------------|--|--|-----------------|---------------------------|---|
| | | | | | | Demon. | Local check | | |
| Storage of pulses | Pulses | 5 | 5 | -- | Net weight of 100 seeds seeds damaged | 10 g Nil | 6 g 40 - 50% | -- | Safe storage of pulses over grains for 6 and half months prevented pest damage in pulses (Red gram and Avare) storage at household level. |

3. Details of training programmes conducted:

Table – 3 A Area-wise distribution of On + Off Campus Training Courses for Farmers and Farm Women (regular + sponsored)

| Thematic Area | No. of Courses | No. of Participants | | | | | | Grand Total |
|---|----------------|---------------------|------------|------------|------------|-----------|------------|-------------|
| | | Others | | | SC/ST | | | |
| | | Male | Female | Total | Male | Female | Total | |
| Crop Production | | | | | | | | |
| Cropping Systems | 03 | 31 | 05 | 36 | 08 | -- | 08 | 44 |
| Crop Diversification | 03 | 15 | -- | 15 | 04 | -- | 04 | 19 |
| Integrated Farming | 02 | 09 | 01 | 10 | 05 | -- | 05 | 15 |
| Integrated Crop Management | 07 | 116 | 04 | 120 | 27 | 11 | 38 | 158 |
| Integrated Nutrient Management | 01 | 09 | -- | 09 | 04 | -- | 04 | 13 |
| Horticulture | | | | | | | | |
| a) Vegetable Crops | | | | | | | | |
| Production of low value and high value crop | 05 | 60 | -- | 60 | 19 | -- | 19 | 79 |
| Grading and standardization | 01 | 06 | 10 | 16 | 02 | 05 | 07 | 23 |
| b) Plantation crops | | | | | | | | |
| Production and Management of technology | 06 | 41 | 19 | 60 | 04 | 05 | 09 | 69 |
| Soil Health and Fertility Management | 02 | 16 | 02 | 18 | 04 | -- | 04 | 22 |
| Production and use of organic inputs | 01 | 30 | -- | 30 | -- | -- | -- | 30 |
| Micro nutrient deficiency in crops | 02 | 41 | -- | 41 | -- | -- | -- | 41 |
| Livestock management & production | | | | | | | | |
| Animal Disease Management | 01 | 18 | -- | 18 | -- | -- | -- | 18 |
| Feed and Fodder technology | 02 | 39 | 09 | 48 | 04 | 01 | 05 | 53 |
| Home Science/Women empowerment | | | | | | | | |
| Designing and development for high nutrient efficiency diet | 01 | 10 | 09 | 19 | 04 | 02 | 06 | 25 |
| Processing and cooking | 05 | -- | 48 | 48 | -- | 27 | 27 | 75 |
| Storage loss minimization techniques | 01 | 03 | 04 | 07 | -- | -- | -- | 07 |
| Value addition | 02 | -- | 10 | 10 | -- | -- | -- | 10 |
| Women empowerment | 02 | -- | 39 | 39 | -- | -- | -- | 39 |
| Location specific drudgery production | 01 | 06 | -- | 06 | -- | 07 | 07 | 13 |
| Post Harvest Technology | 01 | 02 | 11 | 13 | -- | -- | -- | 13 |
| Plant Protection | 02 | 34 | 07 | 41 | -- | 01 | 01 | 42 |
| Integrated Pest Management | 03 | 29 | 01 | 30 | 47 | 01 | 48 | 78 |
| Bio-control of pests and diseases | 03 | 41 | 09 | 50 | 04 | 02 | 06 | 56 |
| Production of bio control agents and bio pesticides | 02 | 29 | -- | 29 | -- | -- | -- | 29 |
| Fisheries | | | | | | | | |
| Integrated fish farming | 05 | 34 | -- | 34 | 28 | 01 | 29 | 63 |
| Composite fish culture | 02 | 30 | 07 | 37 | 11 | -- | 11 | 48 |
| Integrated Farming Systems | 01 | 15 | 05 | 20 | 10 | -- | 10 | 30 |
| TOTAL | 67 | 646 | 194 | 840 | 183 | 63 | 246 | 1086 |

Table – 3 B Area-wise distribution of On + Off Campus Training Courses for Rural Youth (regular + sponsored + vocational)

| Thematic Area | No. of Courses | No. of Participants | | | | | | Grand Total |
|--|----------------|---------------------|------------|------------|-----------|-----------|-----------|-------------|
| | | Others | | | SC/ST | | | |
| | | Male | Female | Total | Male | Female | Total | |
| Integrated farming | 06 | 31 | 10 | 41 | 11 | -- | 11 | 52 |
| Planting material production | 04 | 31 | 50 | 81 | -- | 12 | 12 | 93 |
| Protected cultivation of vegetable crops | 03 | 13 | 10 | 23 | 06 | 01 | 07 | 30 |
| Commercial fruit production | 03 | 37 | -- | 37 | 20 | -- | 20 | 57 |
| Dairy | 01 | 18 | 06 | 24 | 02 | -- | 02 | 26 |
| Ornamental fisheries | 04 | 16 | 50 | 66 | 02 | 04 | 06 | 72 |
| Composite fish culture | 02 | 01 | 07 | 08 | -- | -- | -- | 08 |
| TOTAL | 23 | 147 | 133 | 280 | 41 | 17 | 58 | 338 |

Table – 3 C Area-wise distribution of On + Off Campus Training Courses for In-service Extension Personnel (regular + sponsored)

| Thematic Area | No. of Courses | No. of Participants | | | | | | Grand Total |
|--|----------------|---------------------|--------|-------|-------|--------|-------|-------------|
| | | Others | | | SC/ST | | | |
| | | Male | Female | Total | Male | Female | Total | |
| Low cost and nutrient efficient diet designing | 03 | -- | 24 | 24 | -- | 09 | 09 | 33 |

Table – 4 Numbers of Extension Activities and Beneficiaries

| Nature of Extension Activity | No. of activities | Farmers | | | Extension Officials | | | Total | | |
|--|-------------------|--------------------------|------------|-------------|---------------------|-----------|-----------|-------------|------------|-------------|
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Field Day | 10 | 293 | 94 | 387 | -- | -- | -- | 293 | 94 | 387 |
| Exhibition | 01 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Film Show | 27 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Method Demonstrations | 75 | 647 | 243 | 890 | -- | -- | -- | 647 | 243 | 890 |
| Farmers Seminar | 01 | 56 | -- | 56 | -- | -- | -- | 56 | -- | 56 |
| Workshop | 01 | 41 | 12 | 53 | -- | -- | -- | 41 | 12 | 53 |
| Group meetings | 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Lectures delivered | 10 | 467 | 152 | 690 | -- | -- | -- | 467 | 152 | 690 |
| Newspaper coverage | 77 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Radio Programmes | 22 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| TV Programmes | 07 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Publications | 03 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Popular articles | 05 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Extension Literature | 12 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Scientific visit to farmers field | 165 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Farmers visit to KVK | 252 | 241 | 18 | 259 | -- | -- | -- | 241 | 18 | 259 |
| Diagnostic visits | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Exposure visits | 05 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Agriculture Camps | 02 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Animal Health Camp | 02 | 250 animals were treated | | | | | | | | |
| Self Help Group Conveners meetings | 06 | 43 | 35 | 78 | -- | -- | -- | 43 | 35 | 78 |
| Mahila Mandals Conveners meetings | 01 | -- | 12 | 12 | -- | -- | -- | -- | 12 | 12 |
| Celebration of important days (specify) | | | | | | | | | | |
| World food day | 01 | 10 | 26 | 36 | -- | -- | -- | 10 | 26 | 36 |
| Women in agriculture day | 01 | -- | 65 | 65 | -- | -- | -- | -- | 65 | 65 |
| Kissan Samman Divas | 01 | 04 | 12 | 16 | -- | -- | -- | 04 | 12 | 16 |
| National Science day | 01 | 33 | 26 | 59 | -- | -- | -- | 33 | 26 | 59 |
| World Kitchen Garden day | 01 | 01 | 21 | 22 | -- | -- | -- | 01 | 21 | 22 |
| Parthenium awareness week | 01 | 20 | -- | 20 | -- | -- | -- | 20 | -- | 20 |
| Total | 728 | 1856 | 716 | 2572 | -- | -- | -- | 1856 | 716 | 2572 |

Table – 5 A Productions of Seeds

| Sl. No. | Crop | Quantity (t) | Value (Rs.) | Provided No. of farmers |
|------------------------|-----------------------------|--------------|-------------|-------------------------|
| Commercial crop | | | | |
| 1 | Sugarcane CO-86032 | 9 | 11700 | 05 (FLD farmers) |
| 2 | Sugarcane CO-VC-2003-165 | 12 | 18000 | 05 (FLD farmers) |
| 3 | CO-3 Fodder cuttings | 9000 | 1800 | 03 (FLD farmers) |

Table – 5 B. Production of planting/seedling materials of fruits/vegetables/forests species – NIL

Table –5 C Production of bio products

| Sl. No. | Product Name | Species | Quantity | | Value (Rs.) | Provided to No. of Farmers |
|--------------|------------------------|--------------|-----------|-------------|--------------|----------------------------|
| | | | No | (kg) | | |
| I | BIO FERTILIZERS | | | | | |
| 1 | Vermicompost | Eudrilus sp. | -- | 3195 | 10935 | 25 |
| TOTAL | | | -- | 3195 | 10935 | 25 |

Table 5 D Livestock materials

| Sl.No. | Type | Bread | Quantity | | Value (Rs) | Provided to no. of farmers |
|-----------|-------------------|--|----------|-----|------------|----------------------------|
| | | | No.s | Kgs | | |
| Fisheries | Fingerlings | Rohu, Catla, Common carp | 23650 | -- | 6800 | 06 |
| | Ornamental fishes | Singapur Guppies, Red molly, Black molly | 99 | -- | 640 | 25 |

DETAILED PROFORMA FOR OFT AND FLD CONDUCTED DURING 2007-08**A. On Farm Trial - To be furnished for every OFT separately**

Details of each On Farm Trial to be furnished in the following format separately along with raw data

ONION:

- 1) **Production system** : Rainfed
- 2) **Problem Definition** : Low yield due to purple blotch disease
- 3) **Title of the Technology Assessed** : Purple blotch disease management in onion
- 4) **Thematic area** : Integrated disease management
- 5) **Details of technologies for assessment/refinement**

| Category | Source of Technology | Technology details |
|---------------------|----------------------|--|
| Technology Option 1 | -- | - Foliar spray of different fungicides |
| Technology Option 2 | UAS, Bangalore | - Foliar spray of Dithane M 45 @ 2.5 g/l |
| Technology Option 3 | IIHR, Bangalore | - Seed treatment with Trichoderma @4 g/kg of seeds - Foliar spray of Chlorothalonil @ 2g/l sprays at 15 days interval |

- 6) **Production system and thematic area:** Rainfed & Disease management

- 7) **Raw data about the performance of the Technology assessed / refined with performance indicators**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology assessed / refined | | | | | | | | |
|------------|--------------------|---------------------|---|---------------------|--------------|---------------------|---------------------|--------------|---------------------|---------------------|--------------|
| | | | Technology Option 1 | | | Technology Option 2 | | | Technology Option 3 | | |
| | | | Bulb size | % disease incidence | Yield (t/ha) | Bulb size | % disease incidence | Yield (t/ha) | Bulb size | % disease incidence | Yield (t/ha) |
| 1 | Theerathappa | Arundi | small to medium | 30 % | 9.50 | small to medium | 25 % | 9.68 | Medium to large | 3 % | 13.48 |
| 2 | Eshwarappa | Arundi | | | 8.75 | | | 9.41 | | | 9.52 |
| 3 | Chandrashekharappa | Arundi | | | 8.95 | | | 9.50 | | | 12.96 |
| 4 | Paramesha | Arundi | | | 8.98 | | | 9.79 | | | 10.49 |
| 5 | Basavanagoudar | Arundi | | | 6.12 | | | 7.41 | | | 9.14 |
| 6 | Shivappa Soppanur | Arundi | | | 7.80 | | | 8.78 | | | 11.67 |
| 7 | Shivappa | Arundi | | | 6.75 | | | 6.91 | | | 8.98 |
| 8 | Ashoka | Arundi | | | 7.41 | | | 7.49 | | | 10.79 |
| 9 | Chandrappa | Arundi | | | 6.49 | | | 7.86 | | | 10.87 |
| 10 | Shanmugappa | Arundi | | | 9.25 | | | 9.70 | | | 10.30 |
| | | Average | | | 8.00 | | | 8.65 | | | 10.82 |

- 8) **Final recommendation for micro level situation:**

Seed treatment with Trichoderma @ 4 g/kg of seeds and spraying with chlorothalonil @ 2 g/l reduces the incidence of purple blotch disease

- 9) **Constraints identified and feedback for research :**

Seed production and mass multiplication of disease resistant variety

- 10) **Process of farmers participation and their reaction :**

Effective management of disease by seed treatment with Trichoderma and number of sprays required for spraying are reduced

CABBAGE:

- 1) **Production system** : Irrigated
- 2) **Problem Definition** : Micro nutrient deficiency
- 3) **Title of the Technology Assessed** : Micro nutrient management in Cabbage
- 4) **Thematic area** : Integrated nutrient management
- 5) **Details of technologies for assessment/refinement**

| Category | Source of Technology | Technology details |
|---------------------|----------------------|--|
| Technology Option 1 | -- | - No micronutrient application |
| Technology Option 2 | UAS, Bangalore | - Recommended NPK |
| Technology Option 3 | UAS, Dharwad | - Recommended NPK + COT @ 0.5 t/ ha |

6. **Production system and thematic area:** Irrigated & nutrient management
7. **Raw data about the performance of the Technology assessed / refined with performance indicators**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology assessed / refined | | | | | |
|------------|--------------------|---------------------|---|--------------|----------------------|--------------|----------------------|--------------|
| | | | Technology Option 1 | | Technology Option 2 | | Technology Option 3 | |
| | | | Head weight (g/head) | Yield (t/ha) | Head weight (g/head) | Yield (t/ha) | Head weight (g/head) | Yield (t/ha) |
| 1 | Basappa | Devaralli | 920 | 22.8 | 860 | 23.8 | 810 | 18.8 |
| 2 | Dileep Kumar | Devaralli | 790 | 20.5 | 930 | 21.5 | 840 | 19.4 |
| 3 | Ravi Shankar | Devaralli | 980 | 21.4 | 890 | 22.0 | 850 | 19.8 |
| 4 | Kariyappa | Devaralli | 850 | 18.5 | 950 | 22.8 | 930 | 21.5 |
| 5 | Ranganatha | Devaralli | 890 | 19.0 | 980 | 23.5 | 890 | 20.5 |
| 6 | Chandrappa | Devaralli | 840 | 18.3 | 910 | 24.1 | 860 | 19.5 |
| 7 | Kotrappa | Devaralli | 900 | 21.5 | 850 | 23.9 | 870 | 20.9 |
| 8 | Halesha | Devaralli | 990 | 23.5 | 880 | 21.8 | 820 | 19.0 |
| 9 | Veeresh | Devaralli | 940 | 22.8 | 860 | 23.4 | 910 | 20.7 |
| 10 | Nagaraj | Devaralli | 900 | 21.1 | 990 | 23.6 | 980 | 22.1 |
| | | Average | 900 | 20.9 | 910 | 23.0 | 876 | 20.2 |

8. **Final recommendation for micro level situation:**

- Application of COT @ 0.5 t/ha supplies micronutrients to the crop and gives on par yield with recommended practices besides reduces cost of cultivation.

9. **Constraints identified and feedback for research :**

- Development of granular formulation

10. **Process of farmers participation and their reaction :**

- Field visit and farmers meeting
- Training and demonstration
- COT application gives on par yield with recommended practice.

PADDY:

- 1) **Production system** : Irrigated
- 2) **Problem Definition** : Micro nutrient deficiency
- 3) **Title of the Technology Assessed** : Micro nutrient management in Paddy
- 4) **Thematic area** : Integrated nutrient management
- 5) **Details of technologies for assessment/refinement**

| Category | Source of Technology | Technology details |
|---------------------|----------------------|---------------------------------|
| Technology Option 1 | -- | - No micronutrient |
| Technology Option 2 | UAS, Bangalore | - Zinc sulphate 20 kg/ha |
| Technology Option 3 | UAS, Dharwad | - Application of COT @ 0.5 t/ha |

6. **Production system and thematic area:** Irrigated & nutrient management
7. **Raw data about the performance of the Technology assessed / refined with performance indicators**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology assessed / refined | | | | | | | | |
|------------|---------------------|---------------------|---|---------------------|--------------|---------------------|---------------------|---------------|---------------------|---------------------|---------------|
| | | | Technology Option 1 | | | Technology Option 2 | | | Technology Option 3 | | |
| | | | Plant height (cm) | Panicle length (cm) | Yield (q/ha) | Plant height (cm) | Panicle length (cm) | Yield (kg/ha) | Plant height (cm) | Panicle length (cm) | Yield (kg/ha) |
| 1 | Veersh Patil | Tholahunse | 72.90 | 80.28 | 61.78 | 80.76 | 23.97 | 85.75 | 91.60 | 23.90 | 89.14 |
| 2 | Ullas Patil | Tholahunse | 79.65 | 23.72 | 64.22 | 85.21 | 24.13 | 88.89 | 89.78 | 24.26 | 90.24 |
| 3 | Maheshwarappa | Tholahunse | 78.45 | 17.47 | 65.56 | 79.79 | 21.79 | 86.14 | 93.22 | 22.14 | 87.10 |
| 4 | Chandre gouda | Tholahunse | 69.90 | 22.53 | 66.44 | 87.24 | 22.21 | 84.12 | 94.11 | 23.37 | 91.60 |
| 5 | G.D. Basavanappa | Tholahunse | 80.60 | 18.00 | 65.75 | 89.00 | 22.90 | 80.60 | 83.68 | 23.83 | 93.32 |
| | | Average | 76.30 | 20.00 | 64.75 | 84.40 | 23.00 | 85.10 | 90.50 | 23.50 | 90.28 |

8. **Final recommendation for micro level situation:**
 - Application of COT @ 0.5 t/ha supplies micronutrients to the crop and gives on par yield with recommended practices besides reduces cost of cultivation.
9. **Constraints identified and feedback for research :**
 - Development of granular formulation
10. **Process of farmers participation and their reaction :**
 - Field visit and farmers meeting
 - Training and demonstration
 - COT application gives higher yield compared to recommended practice

B. Front Line Demonstration**A) MAIZE**

- 1) **Production system:** Rainfed
- 2) **Problem Definition:** Low yield, poor quality of seeds, poor germination no potash application, stem borer
- 3) **Title of the Technology demonstrated:** Improved agronomic practices in composite maize (NAC-6004)
- 4) **Thematic area:** Integrated Crop Management
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | | |
|------------|---------------------|---------------------|---|----------------------|---------------------|--------------|
| | | | Plant height (cm) | No. of seeds per cob | No. of rows per cob | Yield (q/ha) |
| 1 | Maheshwarappa | Mellekatte | 183.7 | 387 | 13 | 43.2 |
| 2 | Sannasiddappa | Mellekatte | 175.8 | 393 | 12 | 46.0 |
| 3 | H.S. Shekharappa | Mellekatte | 172.3 | 348 | 12 | 38.3 |
| 4 | D.R. Halappa | Mellekatte | 168.0 | 377 | 12 | 38.0 |
| 5 | Sarvakka | Mellekatte | 174.2 | 401 | 14 | 44.0 |
| 6 | C.T. Kumar | Mellekatte | 149.6 | 353 | 13 | 43.2 |
| 7 | C.V. Thimmappa | Mellekatte | 172.7 | 402 | 12 | 43.2 |
| 8 | Patrappa | Mellekatte | 160.9 | 370 | 12 | 45.0 |
| 9 | Siddappa | Mellekatte | 168.0 | 358 | 11 | 37.5 |
| 10 | Thammanna | Mellekatte | 180.1 | 393 | 13 | 46.0 |
| 11 | B.G. Channappa | Mellekatte | 172.6 | 375 | 12 | 41.6 |
| 12 | K.V. Hanumantharaju | Mellekatte | 178.8 | 400 | 12 | 41.4 |
| 13 | Prasanna Kumar | Mellekatte | 154.9 | 372 | 12 | 44.0 |

8) Final recommendation for micro level situation:

Integrated Nutrient Management with proper spacing will give higher yield

9) Constraints identified and feedback for research:

- Non-availability of seeds
- Heavy rains at seed filling stage
- Poor germination of seeds
- Yield should be still higher than any other private hybrids

10) Process of farmers participation and their reaction:

- Fair participation
- More area should be covered as maize is a major crop
- Seeds should be easily available

B) RICE

- 1) **Production system** : Irrigated (Canal Irrigation)
- 2) **Problem Definition** : Low yield , NO IPM practices followed and improper nutrient management
- 3) **Title of the Technology demonstrated:** Integrated Pest Management in rice
- 4) **Thematic area:** Integrated Pest Management
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology** : UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | | |
|------------|--------------------|-----------------------|---|--------------------|--------------------|--------------|
| | | | % incidence | % of chaffy grains | %Disease incidence | Yield (q/ha) |
| 1 | Prabhakar K.M | Kurki, Davanagere Tq. | 3.00 | 8.8 | -- | 65.5 |
| 2 | Shashidhar | | -- | -- | -- | 62.0 |
| 3 | Veeresh | | 2.92 | 6.5 | 4.0 | 63.5 |

8) Final recommendation for micro level situation:

Installation of the pheromone traps at 15 DAT will control the stem borer incidence along with the different IPM practices will fetches higher yield.

9) Constraints identified and feedback for research:

- Non-availability of pheromone traps and lure
- Non availability of resistant variety

10) Process of farmers participation and their reaction:

- More area should be covered as rice is a major crop.
- Pheromone traps and lure should be easily available at RSK level

C) RAGI

- 1) **Production system:** Rainfed
- 2) **Problem Definition:** Low yield, use of local varieties, no bio fertilizers and improper nutrient management
- 3) **Title of the Technology demonstrated:** Improved cultivation practices in high yielding variety Ragi (GPU-28)
- 4) **Thematic area:** Crop production
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | |
|------------|--------------------|---------------------|---|--------------------------|--------------|
| | | | Plant height (cm) | No. of ear heads / plant | Yield (q/ha) |
| 1 | C.T. Kumar | Mellekatte | 73.3 | 4 | 18.80 |
| 2 | Halappa | Mellekatte | 86.0 | 5 | 21.50 |
| 3 | Nagaraj | Mellekatte | 88.3 | 5 | 22.00 |
| 4 | Siddappa | Mellekatte | 79.4 | 6 | 23.40 |
| 5 | Lalithamma | Kurki | 89.0 | 6 | 21.50 |
| 6 | Renukamma | Kurki | 83.0 | 5 | 22.30 |
| 7 | Shantamma | Kurki | 88.4 | 5 | 22.00 |
| 8 | Vishalakshamma | Kurki | 87.0 | 4 | 21.50 |
| 9 | Parimala | Kurki | 86.0 | 5 | 20.80 |
| 10 | Sumithamma | Kurki | 88.0 | 4 | 23.50 |
| 11 | Roopa | Kurki | 88.0 | 5 | 20.80 |
| 12 | Rathamma | Kurki | 84.8 | 4 | 21.80 |
| 13 | Rathanamma K.O. | Kurki | 92.0 | 4 | 22.60 |
| 14 | Savitha | Kurki | 83.0 | 3 | 22.30 |
| 15 | Maheswarappa | Mellekatte | 89.0 | 4 | 21.50 |
| 16 | Nagaraj T. | Mellekatte | 91.0 | 5 | 23.20 |
| 17 | Sreenivas C.B. | Mellekatte | 89.1 | 5 | 22.50 |
| 18 | Hanumanthappa | Mellekatte | 88.0 | 5 | 22.20 |
| 19 | Raama Naik | Tholahunse | 83.0 | 4 | 21.70 |
| 20 | Veeresh | Tholahunse | 85.0 | 5 | 22.60 |
| 21 | Gurushanthaiah | Tholahunse | 87.0 | 5 | 23.20 |
| 22 | Nagaraj H. | Tholahunse | 91.0 | 4 | 22.70 |
| 23 | P. Rudrappa | Tholahunse | 90.0 | 3 | 20.80 |
| 24 | Prabhukumar | Tholahunse | 89.8 | 3 | 22.00 |

8) Final recommendation for micro level situation:

Use of high yielding varieties with proper management yields highs when compared to local varieties.

9) Constraints identified and feedback for research: -- Nil --**10) Process of farmers participation and their reaction:**

- More farmers participated during field day
- Seeds should be easily available at RSK level
- They are resistant to diseases compared to local

D) Cotton (Kharif)

- 1) **Production system:** Rainfed
- 2) **Problem Definition:** Low yield, indiscriminate use of pesticides, square drying, leaf reddening, boll worms
- 3) **Title of the Technology demonstrated:** Integrated Crop Management
- 4) **Thematic area:** Integrated Crop Management
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | | |
|------------|--------------------|-----------------------|---|------------------------|--------------|----------|
| | | | Plant height (cm) | No. of bolls per plant | Yield (q/ha) | |
| | | | | | RCHB-708 | MRC-6918 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | Kallappa | Anajigere and Budihal | 207.0 | 72 | 17.4 | -- |
| 2 | Hanumakka | | 200.0 | 76 | 18.2 | -- |
| 3 | K. Durugappa | | 203.0 | 68 | 17.2 | -- |
| 4 | Bharamanagouda | | 186.0 | 83 | 19.0 | -- |
| 5 | S. Basappa | | 184.0 | 78 | 18.0 | -- |
| 6 | Basappa | | 196.5 | 73 | 16.4 | -- |
| 7 | Prabhulingappa | | 178.0 | 73 | 16.8 | -- |
| 8 | K.B. Basappa | | 183.8 | 69 | 15.9 | -- |
| 9 | Nagendrappa | | 212.0 | 79 | 17.1 | -- |
| 10 | Indramma | | 186.5 | 71 | 17.2 | -- |
| 11 | B. Shivanna | | 206.4 | 72 | 15.8 | -- |
| 12 | Kariyappa | | 198.0 | 74 | 17.1 | -- |
| 13 | Channabasappa | | 190.0 | 68 | 15.3 | -- |
| 14 | Narappa | | 201.5 | 69 | 17.2 | -- |
| 15 | AK Parushappa | | 203.8 | 77 | 16.3 | -- |
| 16 | Rajappa | | 213.0 | 63 | 14.2 | -- |
| 17 | K. Kenchappa | | 209.2 | 68 | 17.3 | -- |
| 18 | K.G.Gurubasappa | | 208.3 | 64 | 15.4 | -- |
| 19 | Vimala | | 200.0 | 83 | 17.3 | -- |
| 20 | Revanasidappa G. | | 202.0 | 81 | 17.3 | -- |
| 21 | N. Diwansab | | 188.7 | 79 | 16.8 | -- |
| 22 | Hemanthraj | | 193.0 | 77 | 17.2 | -- |
| 23 | Ravi.N | | 212.0 | 74 | 16.6 | -- |
| 24 | K.G.Gurubasappa | | 199.4 | 59 | 15.4 | -- |
| 25 | C.K Kenchappa | | 212.0 | 112 | -- | 19.5 |
| 26 | K. Basavaraj | | 201.2 | 128 | -- | 20.2 |
| 27 | Kuberappa | | 200.1 | 115 | -- | 18.5 |
| 28 | K.S. Bharamappa | | 195.3 | 199 | -- | 17.8 |
| 29 | K. Basavaraj | | 208.3 | 125 | -- | 22.3 |
| 30 | Siddalingappa | | 188.0 | 111 | -- | 16.3 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----|-----------------|--------------------------|-------|-----|----|------|
| 31 | Veeramma | Anajigere and Budihal | 197.0 | 106 | -- | 18.2 |
| 32 | Siddappa | | 196.4 | 106 | -- | 17.3 |
| 33 | Baramma | | 203.8 | 112 | -- | 19.6 |
| 34 | Karibasappa | | 210.0 | 109 | -- | 17.4 |
| 35 | Hanumanthappa.S | | 212.5 | 123 | -- | 19.2 |
| 36 | Uchchangamma | | 213.6 | 120 | -- | 18.8 |
| 37 | A.K. Gonappa | | 183.5 | 96 | -- | 16.4 |
| 38 | Vchchangamma | | 208.4 | 105 | -- | 17.3 |
| 39 | S. Nagaraj | | 213.4 | 123 | -- | 19.0 |
| 40 | Parushappa | | 183.8 | 104 | -- | 16.4 |
| 41 | K. Shivakumar | | 212.5 | 119 | -- | 17.1 |
| 42 | Siddappa | | 195.3 | 121 | -- | 18.5 |
| 43 | Kotresh | | 198.8 | 117 | -- | 18.2 |
| 44 | T. Benuvappa | | 176.0 | 119 | -- | 18.4 |
| 45 | S. Shivakumar | | 187.0 | 97 | -- | 17.8 |
| 46 | D. Kenchappa | | 206.2 | 107 | -- | 18.3 |
| 47 | G. Shivanna | | 203.8 | 115 | -- | 18.8 |
| 48 | K. Rajkumar | | 215.6 | 121 | -- | 20.2 |
| 49 | Shivamurthy | | 209.3 | 110 | -- | 18.4 |
| 50 | Anandappa | | 213.6 | 113 | -- | 17.9 |

8) **Final recommendation for micro level situation:**

- Use of Bt. Hybrid MRC-6918 yields higher than varieties
- Use of Planofix and Zimag reduce boll shedding and square drying

9) **Constraints identified and feedback for research: -Nil-**

10) **Process of farmers participation and their reaction:**

- Boll worm incidence reduced due to Bt as compared to earlier grown hybrid
- Noticed the occurrence of boll worms on Bendi and Marigold. So the incidence of pests reduced on main crop and decreased the plant protection cost
- Micro nutrient and growth regulator spray reduced the flower drop and square drying considerably
- Pheromone traps helped in assessment of pest population and timely spray reduced the cost on chemicals

E) Groundnut (Kharif)

- 1) **Production system:** Rainfed
- 2) **Problem Definition:** Collor rot, root rot, tikka leaf spot, no gypsum application, labour and time consumption
- 3) **Title of the Technology demonstrated:** Integrated crop management of disease resistant variety- GPBD-4
- 4) **Thematic area:** Integrated Crop Management
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | |
|------------|--------------------|------------------------|---|-----------------------|--------------|
| | | | Plant height (cm) | No. of pods per plant | Yield (q/ha) |
| 1 | Shanmukha M.H. | Aluru Davanagere tq | 19.40 | 33 | 17.0 |
| 2 | Nagaraj B.K. | | 17.30 | 38 | 18.5 |
| 3 | Kalingappa | | 18.45 | 36 | 17.0 |
| 4 | Basppa H.R. | | 21.00 | 43 | 20.0 |
| 5 | Shankarappa D.M. | | 16.00 | 29 | 13.75 |
| 6 | Shankarappa D.H. | | 16.20 | 31 | 16.0 |
| 7 | Muruges G.R. | | 17.81 | 33 | 18.75 |
| 8 | Annappa G. | | 21.24 | 43 | 20.90 |
| 9 | Saifullasab H. | | 17.30 | 31 | 17.0 |
| 10 | Maheshwarappa H. | | 19.48 | 39 | 20.50 |
| 11 | Beerappa G.B. | | 17.49 | 29 | 18.5 |
| 12 | Suvakkka | | 19.32 | 38 | 20.50 |

8) Final recommendation for micro level situation:

Integrated crop management with tikka resistant variety GPBD-4 gives higher yield compared to local TMV-2 variety

9) Constraints identified and feedback for research:

- Non-availability of seeds in time
- Heavy rains at pegging and seed filling stage

10) Process of farmers participation and their reaction:

- More pods per plant results in higher yield
- Seeds should be easily available
- Trichoderma application gives excellent control of collar rot

F) Groundnut (Rabi)

- 1) **Production system:** Rainfed
- 2) **Problem Definition:** Collor rot and root rot, tikka leaf spot, RHHC, no gypsum application
- 3) **Title of the Technology demonstrated:** Integrated crop management of disease resistant variety- GPBD-4
- 4) **Thematic area:** Integrated Crop Management
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | |
|------------|--------------------|-------------------------------|---|-----------------------|--------------|
| | | | Plant height (cm) | No. of pods per plant | Yield (q/ha) |
| 1 | Siddesh | Mallenahally Davanagere tq | 18.20 | 31 | 17.2 |
| 2 | Mahendra | | 16.30 | 28 | 16.5 |
| 3 | Ashoka | | 16.80 | 28 | 16.7 |
| 4 | Manjunath | | 16.00 | 27 | 15.4 |
| 5 | Shavakumar | | 18.30 | 35 | 17.8 |
| 6 | Revanasiddappa | | 15.90 | 23 | 15.2 |
| 7 | Suresh | | 16.95 | 29 | 16.4 |
| 8 | Parameshwarappa | | 15.13 | 21 | 16.0 |

8) Final recommendation for micro level situation:

Seed treatment with Trichoderma, gypsum application with nutrient management in variety GPBD-4 gives higher yield.

9) Constraints identified and feedback for research:

- Non-availability of seeds in time
- Heavy rains at pegging and seed filling stage

10) Process of farmers participation and their reaction:

- More pods per plant results in higher yield
- Seeds should be easily available
- Trichoderma application gives excellent control of collar rot
- Easy penetration of pegs by application of gypsum

G) Sunflower (Rabi/ Summer)

- 1) **Production system:** Rainfed
- 2) **Problem Definition:** No seed treatment, improper nutrient management, bud necrosis, root rot
- 3) **Title of the Technology demonstrated:** Integrated crop management in KBSH-41
- 4) **Thematic area:** Integrated Crop Management
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | | |
|------------|--------------------|----------------------------|---|--------------------|---------------------|--------------|
| | | | Plant height (cm) | Head diameter (cm) | % Disease incidence | Yield (q/ha) |
| 1 | Shivakumar | Pothalakatte Davanagere tq | 111.4 | 9.93 | -- | 14.5 |
| 2 | Ramesh | | 102.9 | 8.74 | 5.0 | 13.8 |
| 3 | Rajanna | | 98.74 | 8.85 | 4.0 | 14.0 |
| 4 | Byresha | | 117.9 | 14.30 | -- | 17.5 |
| 5 | Sujatha | | 124.3 | 12.47 | 2.5 | 16.5 |
| 6 | Vishalakshi | | 91.80 | 8.11 | 7.0 | 12.5 |
| 7 | Basavarajappa | | 89.67 | 14.81 | -- | 18.0 |
| 8 | Shambulingappa | | 97.40 | 14.89 | -- | 17.5 |
| 9 | Shivakumar | | 103.79 | 13.43 | -- | 16.5 |
| 10 | Nataraj | | 96.38 | 8.82 | 5.0 | 14.0 |
| 11 | Honnappa | | 88.46 | 12.97 | -- | 16.5 |
| 12 | Lingappa | | 93.16 | 14.19 | -- | 17.5 |
| 13 | Siddappa. N. | | 114.80 | 13.72 | 3.0 | 14.0 |
| 14 | Siddappa. N. | | 119.49 | 8.29 | 8.0 | 12.5 |
| 15 | Anjanappa | | 93.17 | 13.97 | -- | 17.5 |
| 16 | Kenchappa | | 108.79 | 12.94 | -- | 14.5 |
| 17 | Parvathappa | | 106.23 | 11.73 | 4.0 | 13.5 |
| 18 | Poojar Ajjappa | | 117.83 | 10.79 | 5.0 | 13.0 |
| 19 | Bheemappa | | 121.82 | 13.43 | -- | 15.0 |
| 20 | Halesh | | 92.46 | 13.73 | -- | 15.8 |
| 21 | Vamadevappa | | 87.27 | 13.99 | -- | 16.5 |
| 22 | Shivakumar | | 86.19 | 12.46 | 3.0 | 15.1 |
| 23 | Shivalingappa | | 99.73 | 11.73 | -- | 15.0 |

8) Final recommendation for micro level situation:

Seed treatment with imidacloprid, Trichoderma application, spraying of imidacloprid and borax gives higher yield.

9) Constraints identified and feedback for research:

- Non-availability of seeds in time
- Development of bud necrosis resistant variety

10) Process of farmers participation and their reaction:

- Seed treatment with gauch controls bud necrosis
- Availability of seeds in time
- Trichoderma application controls root rot
- Application of borax results in more seed setting

H) Redgram (Kharif)

- 1) **Production system:** Rainfed
- 2) **Problem Definition:** No seed treatment, pod borer, wilt
- 3) **Title of the Technology demonstrated:** Integrated pest management in BRG-1
- 4) **Thematic area:** Integrated Pest Management
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | | |
|------------|--------------------|-----------------------------|---|-----------------------|-----------------------|--------------|
| | | | Plant height (cm) | No. of pods per plant | % pod borer incidence | Yield (q/ha) |
| 1 | Gurubasappa | Mellekatte Davanagere tq | 244.13 | 112 | 5.0 | 7.0 |
| 2 | Nagappa | | 219.72 | 122 | -- | 6.5 |
| 3 | Kumar | | 199.73 | 96 | 4.0 | 7.2 |
| 4 | Hemantraj | | 179.54 | 89 | -- | 7.0 |
| 5 | Channabasappa | | 187.92 | 113 | -- | 6.8 |
| 6 | Nagarajappa | | 196.46 | 99 | 4.0 | 6.3 |
| 7 | Revanasiddappa | | 208.64 | 87 | -- | 7.2 |
| 8 | Rajappa | | 188.37 | 109 | 6.0 | 6.7 |
| 9 | Sarvakka | | 222.89 | 119 | -- | 7.0 |
| 10 | Umapathy | | 193.49 | 97 | -- | 6.9 |

8) Final recommendation for micro level situation:

Installation of pheromone traps before flowering; spray with HaNPV and neem oil effectively reduces the incidence of pod borer.

9) Constraints identified and feedback for research:

- Development of pod borer resistant variety

10) Process of farmers participation and their reaction:

- Installation of pheromone traps monitor the incidence of pod borer
- Spray of HaNPV and neem product reduces pod borer damage (Ecofriendly agent)

D) Bengalgram (Rabi)

- 1) **Production system** : Rainfed
- 2) **Problem Definition** : Loss of grain due to storage pests, wilt & pod borer
- 3) **Title of the Technology demonstrated** : Integrated Pest Management in Bengal gram
- 4) **Thematic area** : Integrated Pest Management
- 5) **Year of release of the technology or Year of assessment** :
- 6) **Source of technology** : UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | |
|------------|------------------------|---------------------|---|-----------------------|--------------|
| | | | No. of pods per plant | % pod borer incidence | Yield (q/ha) |
| 1 | Vishwanath | Bheemanere | 43 | -- | 5.2 |
| 2 | Ravikumar | | 33 | 6.0 | 4.1 |
| 3 | Manjunath | | 40 | -- | 4.8 |
| 4 | Devendrappa | | 39 | 5.0 | 4.5 |
| 5 | Subash | | 32 | 4.0 | 6.2 |
| 6 | Andana gowdru rudrappa | | 38 | -- | 5.0 |
| 7 | Andana gowdru Lokesh | | 49 | -- | 6.2 |
| 8 | Shivanna | | 41 | -- | 4.9 |
| 9 | Balappa | | 42 | -- | 5.0 |
| 10 | Manjunatha.A.C. | | 27 | 8.0 | 6.5 |
| 11 | Yallappa | | 46 | -- | 5.8 |
| 12 | Chandrappa | | 34 | 5.0 | 4.9 |
| 13 | BAGaniyara | | 31 | 3.0 | 5.3 |
| 14 | Sanjeevareddy | | 47 | -- | 6.3 |
| 15 | Venkannajja | | 43 | -- | 5.8 |
| 16 | Andana Paaraameshappa | | 25 | 6.0 | 4.9 |
| 17 | Samantappa | | 38 | 3.0 | 6.1 |
| 18 | Nagarajappa | | 37 | -- | 5.8 |
| 19 | Channappa gowda | | 39 | -- | 5.2 |
| 20 | Shivarajappa | | 31 | 5.0 | 5.4 |
| 21 | BAAsavarajappa | | 39 | -- | 5.8 |
| 22 | Rudresh | | 21 | -- | 3.0 |
| 23 | Venkatesh | | 29 | -- | 4.2 |
| 24 | Umesh | | 34 | 4.0 | 6.0 |
| 25 | Basavaraju | | 29 | 3.0 | 4.8 |
| 26 | Chandrashekhar | | 49 | -- | 6.3 |
| 27 | Hanumantagowda | | 39 | -- | 5.5 |
| 28 | BAAsavarajappa | | 36 | -- | 4.9 |
| 29 | Thimmanna | | 45 | -- | 5.8 |
| 30 | Harisha | | 30 | 4.0 | 5.0 |

8) Final recommendation for micro level situation:

Installation of pheromone traps, Trichoderma seed treatment, spray with HaNPV and neem oil reduces pod borer damage and results in higher yield.

9) Constraints identified and feedback for research: Development of pod borer resistant variety**10) Process of farmers participation and their reaction:**

- Seed treatment and soil application of Trichoderma reduces wilt incidence
- Installation of pheromone traps monitor the incidence of pod borer
- Spray of HaNPV and neem product reduces pod borer damage (Ecofriendly agent)

J) Brinjal (Kharif)

- 1) **Production system:** Rainfed
- 2) **Problem Definition:** Loss in yield due to shoot & fruit borer
- 3) **Title of the Technology demonstrated:** Integrated Pest Management against shoot & fruit borer
- 4) **Thematic area:** Integrated Pest Management
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** UAS, Bangalore

7) Raw data about the performance of the demonstrated technology

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | |
|------------|--------------------|--|---|-------------------------|--------------|
| | | | No. of fruits per plant | % Shoot borer incidence | Yield (q/ha) |
| 1 | Ranganatha | Devarahally Channagiri tq Aluru Davanagere tq | 58 | -- | 155.2 |
| 2 | Kariyappa | | 37 | 7.0 | 122.0 |
| 3 | Ravikumar | | 39 | -- | 133.7 |
| 4 | Hemantraj | | 34 | -- | 115.3 |
| 5 | Gurulingappa | | 32 | 5.0 | 92.3 |

8) Final recommendation for micro level situation:

Installation of Wota traps, spray with neem oil and profenophos reduces shoot & fruit borer damage and results in higher yield.

9) Constraints identified and feedback for research:

- Development of shoot & fruit borer resistant variety

10) Process of farmers participation and their reaction:

- Installation of Wota traps monitor the incidence of shoot & fruit borer
- Spray with neem oil reduces shoot & fruit borer incidence (Ecofriendly agent)

K) Cauliflower (Rabi/Summer)

- 1) **Production system:** Irrigated
- 2) **Problem Definition:** Loss in yield due to diamond back moth
- 3) **Title of the Technology demonstrated:** Integrated Pest Management against diamond back moth
- 4) **Thematic area:** Integrated Pest Management
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | |
|------------|--------------------|---------------------------|---|--------------|
| | | | % incidence of DBM | Yield (q/ha) |
| 1 | Chandarappa | Kudurekonda Honnali tq | 3.0 | 14.50 |
| 2 | Nagarajappa | | 10.0 | 11.30 |
| 3 | Umeshappa | | -- | 14.80 |
| 4 | Siddappa | | 5.0 | 14.60 |
| 5 | Palakshappa | | -- | 15.30 |

8) Final recommendation for micro level situation:

Trap crop with mustard, spray with DDVP and pongamia soap reduces diamond back moth damage.

9) Constraints identified and feedback for research:

- Development of diamond back moth resistant variety

10) Process of farmers participation and their reaction:

- Mustard as a trap crop reduce the incidence of diamond back moth on cauliflower
- Spray with DDVP & pongamia soap decreases diamond back moth incidence

L) Fisheries (Kharif)

- 1) **Production system:** Irrigated
- 2) **Problem Definition:** Agriculturally unsuitable land area
- 3) **Title of the Technology demonstrated:** Integrated Fish Farming with fruits and vegetables.
- 4) **Thematic area:** Efficient utilization of land water through aquaculture (IFF)
- 5) **Year of release of the technology or Year of assessment:** NA
- 6) **Source of technology:** UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | | | | | |
|------------|--------------------|---------------------|---|------------------------|-----------------------------------|-----------------------------------|--------------|-------------------------|
| | | | pH | Average weight of fish | Average cost of feed per ha (Rs.) | Income from fruits and vegetables | Yield (t/ha) | Net income per ha (Rs.) |
| 1 | Shivashankar | Kenchanahalli | 7.7 | 0.51 | 14,000 | 2400-00 | 3.9 | 64427-00 |
| 2 | Dyamanna | Haluvarthy | 7.8 | 0.55 | | 2600-00 | 3.9 | |
| 3 | Basavaraj | Kulambi | 8.0 | 0.53 | | 2500-00 | 4.1 | |
| 4 | Firooz khan | Karlahalli | 8.0 | 0.49 | | 2300-00 | 4.1 | |
| 5 | Halesh | Deeturu | 7.5 | 0.50 | | 2500-00 | 3.9 | |
| 6 | Siddappa | Deeturu | 7.5 | 0.49 | | 2600-00 | 4.0 | |

8) Final recommendation for micro level situation:

Polyculture in small inland ponds does generate substantial income; Integration of fruits and vegetables production on fish pond dykes generates additional income and efficient utilization of resources.

9) Constraints identified and feedback for research:

- Initial investment for pond construction is difficult for small farmers (Current subsidy provided is not enough).
- Poaching and enemy birds.
- Non availability of bigger size fingerlings in required number at seed stocking time.

10) Process of farmers participation and their reaction:

- Many new farmers were trained under this FLD to take up fish culture as a subsidiary entrepreneurship.
- Few of them were apprehensive in the beginning and became convinced at the end of FLD.
- Many of them have decided to take up fish culture independently.
- They have realized that fish in tank is like a money in bank.

M) POST HARVEST TECHNOLOGY

- 1) **Production system:** Rainfed
- 2) **Problem Definition:** Post harvest losses of grains due to insect infestation
- 3) **Title of the Technology demonstrated:** Safe storage of pulses
- 4) **Thematic area:** Post Harvest Technology
- 5) **Year of release of the technology or Year of assessment:**
- 6) **Source of technology:** PHT, UAS, Bangalore
- 7) **Raw data about the performance of the demonstrated technology**

| Farmer No. | Name of the farmer | Name of the Village | Data on the performance indicators of the technology demonstrated | |
|------------|--------------------|---------------------|---|--------------------|
| | | | Net weight of 100 seeds (g) | % of seeds damaged |
| 1 | Karibasamma | Mallenahalli | 10.0 | Nil |
| 2 | Kavitha | Mallenahalli | 9.8 | |
| 3 | Rathnamma | Mallenahalli | 10.0 | |
| 4 | Revanna | Mallenahalli | 9.9 | |
| 5 | Vishalamma | Mallenahalli | 10.0 | |

- 8) **Final recommendation for micro level situation:** Simple, low cost and easy to adopt technology that reduces damage of stored grains and prevents economic loss.
- 9) **Constraints identified and feedback for research:** --Nil --
- 10) **Process of farmers participation and their reaction:**
 - Farm women expressed that it is a drudgery reducing technology and easy for adoption.
 - Women tried to store multiple grains in layers in one container and found no infestation.

N) FRENCH BEAN

1. Production System : Irrigated

2. Problem Definition : Lower productivity due to use of local variety

3. Title of the Technology demonstrated : Production technology of High Yielding Variety - Arka Komal.

4. Thematic area : Popularization of High Yield Variety - Arka Komal

5. Year of release :

6. Source of Technology : IIHR, Bangalore

7. Raw Data about the performance of the Demonstrated Technology:

| Sl. No. | Name | Village | No. of days to Germination (>80%) | Yield (q/ha) |
|---------|----------------|------------|-----------------------------------|--------------|
| 1. | Anasuyamma | R.G. Halli | 12 | 143.07 |
| 2. | Somashekarappa | R.G. Halli | 12 | 138.03 |
| 3. | Manjunatha | R.G. Halli | 10 | 161.01 |
| 4. | Vinayaka | R.G. Halli | 10 | 155.00 |
| 5. | Manjunatha | R.G. Halli | 11 | 147.07 |

8. Final Recommendation for Micro level situation:

- Seed treatment with biofertilizer like Trichoderma help in preventing seed borne diseases.
- Timely spray of systemic insecticides reduces the leaf minor incidence.

9. Constraints identified and feed back for research:

- Root rot was severe in flodded areas.
- Incidence of viral diseases.
- Need to develop virus resistant variety.
- Need to popularize IPM and INM

10. Process of Farmers Participation and their reaction:

- Farmer participation is excellent and they are happy with the performance of the variety.
- Need to expand area under their variety.

O) TOMATO**1. Production System** : Irrigated**2. Problem Definition** : Lower productivity due to heavy incidence of TLCV**3. Title of the Technology demonstrated** : Production Technology of TLCV resistant varieties - Sankranthi, Nandi and Vaibhav**4. Thematic area** : Popularization of TLCV resistant varieties**5. Year of release** :**6. Source of Technology** : UAS, Bangalore**7. Raw Data about the performance of the Demonstrated Technology:**

| Sl. No. | Name | Village | Germination | % incidence of TLCV | Yield (q/ha) |
|---------|-----------------|-------------|-------------|---------------------|--------------|
| 1. | Ravikumar | Devarahalli | 80 | A | 157.05 |
| 2. | Ranganath | Devarahalli | 77 | A | 170.00 |
| 3. | Basavaraj | Devarahalli | 83 | A | 122.05 |
| 4. | Kariyappa | Devarahalli | 78 | B | 145.00 |
| 5. | Dilipkumar G.M. | Devarahalli | 88 | A | 152.05 |
| 6. | Rathnamma | Devarahalli | 74 | A | 157.05 |
| 7. | Manjamma | Devarahalli | 76 | B | 142.05 |
| 8. | Shivamurthy | Devarahalli | 73 | A | 137.05 |
| 9. | Ravikumar | Devarahalli | 80 | A | 152.05 |
| 10. | Revanner | Devarahalli | 83 | A | 160.00 |

Note: A-No incidence, B-Slightly (2-3), C-Moderate (8-10%)**8. Final Recommendation for Micro level situation:** Raising seedlings with raised seed bed method ensures better germination (%) and proper staking at flowering stage helps in getting higher yield with good quality.**9. Constraints identified and feed back for research:**

- Damping off of seedlings in flat beds.
- Fruit rotting in non staked plots.
- To develop variety with round shape and good acid content.
- To develop variety with higher resistant to TLCV virus.

10. Process of Farmers Participation and their reaction:

Better participation of the farmers was observed. They are happy with the raised bed method of seedlings raising.

P) ONION**1. Production system :** Rainfed**2. Problem Definition :** Lower productivity due to higher purple blotch incidence.**3. Title of the Technology demonstrated :** Production Technology of High Yield Variety - Arka Kalyan.**4. Thematic area :** Popularization of purple blotch resistant variety**5. Year of release :****6. Source of Technology :** IIHR, Bangalore**7. Raw Data about the performance of the Demonstrated Technology:**

| Sl. No. | Name | Village | Germination | % incidence of Purple biotech | Yield (q/ha) |
|---------|---------------------|---------|-------------|-------------------------------|--------------|
| 1. | A. K. Manjappa | Arundi | 88 | A | 100.00 |
| 2. | R.T. Veeresh | Arundi | 91 | B | 120.00 |
| 3. | C.R. Veeresh | Arundi | 79 | A | 104.00 |
| 4. | G. Sanna Shekarappa | Arundi | 83 | A | 140.00 |
| 5. | Veerannagowda | Arundi | 84 | B | 95.02 |
| 6. | P.G. Basavanagowda | Arundi | 76 | A | 74.05 |
| 7. | M.G. Channabasappa | Arundi | 90 | A | 135.02 |
| 8. | G. Thimmesh | Arundi | 81 | B | 128.02 |
| 9. | S. Shivappa | Arundi | 88 | A | 119.07 |
| 10. | T. Manjappa | Arundi | 86 | A | 132.05 |

Note: A-No incidence, B-Slightly (2-3), C-Moderate (8-10%)**8. Final Recommendation for Micro level situation:**

Treating seeds with Trichoderma bio fertilizer will help in prevention of purple blotch incidence.

9. Constraints identified and feed back for research:

- Lack of availability of Arka Kalyan seeds.
- Weed menace.
- Develop HYV with more resistant to purple blotch and trips.
- Development of variety with light red and medium size bulbs.

10. Process of Farmers Participation and their reaction:

Farmers participation was excellent and now the 70% of the total onion cropped area is under Arka Kalyana.

Q) POTATO**1. Production System :** Irrigated**2. Problem Definition :** Lower productivity due to local varieties / hybrids**3. Title of the Technology demonstrated :** Production Technology of high yielding Variety - Kufri Jyothi.**4. Thematic area :** Popularization of Kufri Jyothi**5. Year of release :****6. Source of Technology :** UAS, Bangalore**7. Raw Data about the performance of the Demonstrated Technology:**

| Sl. No. | Name | Village | Average % emergence | No. of tubers/plant | Yield (q/ha) |
|---------|-------------|------------|---------------------|---------------------|--------------|
| 1. | Anandappa | Davanagere | 89.72 | 6.17 | 113.5 |
| 2. | Ravi | Davanagere | 74.68 | 8.66 | 121.6 |
| 3. | Shivakumara | Avaragere | 83.48 | 7.76 | 108.1 |
| 4. | Marulappa | Avaragere | 80.07 | 7.08 | 103.8 |
| 5. | Chadrappa | Basapura | 84.76 | 7.91 | 117.6 |

8. Final Recommendation for Micro level situation: Tuber treatment with systemic fungicides reduce the incidence of diseases in the main field and proper earthing up helps in getting better size tubers and reduces greening.**9. Constraints identified and feed back for research:**

- High cost of seed tubers.
- Non availability of quality tubers for planting.
- To develop heat tolerant varieties.
- To develop varieties with low reducing and non reducing sugar content.

10. Process of Farmers Participation and their reaction:

Though the crop is new to the district, farmers have lot of interest in cultivation of this crop. Area expansion is needed to popularize the crop.

R) COCONUT**1. Production System :** Irrigated**2. Problem Definition :** Heavy incidence of button shedding and poor yield due to poor nutrition.**3. Title of the Technology demonstrated :** Integrated Nutrient Management in coconut**4. Thematic area :** Popularization of INM**5. Year of release :****6. Source of Technology :** UAS, Bangalore**7. Raw Data about the performance of the Demonstrated Technology:**

| Sl. No. | Name | Village | Data No. of nuts/palm | Incidence of button shedding (%) |
|---------|-------------------------------|------------|-----------------------|----------------------------------|
| 1. | Ravindrappa S/o Ankalappa | R.G. Halli | 68 | B |
| 2. | Shambulingappa S/o Nagappa | R.G. Halli | 72 | B |
| 3. | Marulasiddappa S/o Ajjappa | R.G. Halli | 89 | B |
| 4. | Surendra S/o Ananadappa | R.G. Halli | 66 | B |
| 5. | Ramesha S/o Somashekarappa | R.G. Halli | 77 | B |
| | | | | B |

Note: A- No Button Shedding, B-Slightly (2-3 %), C- Moderate (8-10%)**8. Final Recommendation for Micro level situation:**

INM with organic manures and green manuring will enriches soil fertility and thus increases productivity.

9. Constraints identified and feed back for research:

- Poor cooperative measures by the farmers
- Heavy incidence of mites and BHC
- Need to develop technologies which helps to strengthen the palms against attack pest and disease
- Fertilization with water soluble fertilizer

10. Process of Farmers Participation and their reaction:

- Farmer participation was fair.
- Farmers urging to develop more number of method demonstrations through the district for which we need more financial assistance.

S) ARECANUT**1. Production System :** Irrigated**2. Problem Definition :** Button shedding due to deficiency of micronutrients and poor nutrition.**3. Title of the Technology demonstrated :** Integrated Nutrient Management in Arecanut**4. Thematic area :** Popularization of INM**5. Year of release :****6. Source of Technology :** UAS (Bangalore)**7. Raw Data about the performance of the Demonstrated Technology:**

| Sl. No. | Name | Village | No. of Inflorescence/palm | % Incidence of button shedding (%) |
|---------|-------------------------------|------------|---------------------------|------------------------------------|
| 1. | Shivakumar S/o Rajendrappa | R.G. Halli | 05 | B |
| 2. | Ramesha S/o Mahadevappa | R.G. Halli | 04 | B |
| 3. | Ramachandrappa S/o Ramappa | R.G. Halli | 04 | A |
| 4. | Kallesha S/o Devendrappa | R.G. Halli | 05 | B |
| 5. | Mahendra S/o Varadarajappa | R.G. Halli | 04 | B |

Note: A- No Button Shedding, B-Slightly (2-3 %), C- Moderate (8-10%)

8. Final Recommendation for Micro level situation:

Integrated nutrient management with micronutrients and organic matter will enriches soil fertility and productivity.

9. Constraints identified and feed back for research:

- More area should be under demonstration as Areca is main crop.
- Fertigation with water soluble fertilizers.

10. Process of Farmers Participation and their reaction:

- Farmers participation was excellent.
- Need to take up demonstration in all 4 taluks of the district.

Annexure I

A) Details of FLD's implemented during Kharif 2008-09

| Sl. No. | Crop | Thematic area | Technology Demonstrated | Season and year | Area (ha) | | No. of farmers/ demonstration | | | Status |
|---------|-----------------------------|---|---|-----------------|-----------|--------|-------------------------------|--------|-------|--|
| | | | | | Proposed | Actual | SC/ST | Others | Total | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1 | Fisheries | IFF | Composite fish culture in inland farm ponds using advanced carp fingerlings | Kharif 2008 | 5 | 5 | 2 | 3 | 5 | Fish fingerlings have been stocked. Feed with indigenous materials has been formulated. Regular fertilization at 20 days interval with cow dung has carried out. |
| 2 | Fisheries | Fish polyculture with growth assessment | Comparative growth assessment of common carp and Amur common carp in farm ponds | Kharif 2008 | 4 | 4 | -- | 2 | 2 | |
| 3 | Fisheries | Fish polyculture in concrete structure | Fish polyculture in concrete based storage tanks using advanced fingerlings | Kharif 2008 | 5 | 5 | -- | 4 | 4 | |
| 4 | Ragi | Crop production | Popularization of GPU-28 | Kharif 2008-09 | 15 | 15 | 10 | 14 | 24 | Grain filling stage |
| 5 | Paddy | Crop production | Integrated Nutrient Management | Kharif 2008-09 | 2.5 | 2.5 | 02 | 04 | 06 | Tillering stage |
| 6 | Maize | Nutrient Management | Popularization of Hybrid NAH-2049 INM | Kharif 2008-09 | 05 | 05 | 04 | 07 | 11 | Harvesting stage |
| 7 | Sunflower | Pest management | IPM | Kharif 2008-09 | 10 | 10 | 08 | 15 | 23 | Seed filling stage |
| 8 | Redgram | Pest management | IPM | Kharif 2008-09 | 10 | 10 | 06 | 11 | 17 | Flowering initiation stage |
| 9 | Minor millet (Same, Navane) | Crop production | Introduction of Navanae – STA-326 & Same-203 | Kharif 2008-09 | 05 | 05 | 03 | 07 | 10 | Grain filling stage |
| 10 | Tomato | Pest management | IPM | Kharif 2008-09 | 01 | 01 | 02 | 03 | 05 | Fruiting stage |
| 11 | Cotton | Crop production | ICM | Kharif 2008-09 | 20 | 20 | 19 | 31 | 50 | Boll formation stage |
| 12 | Sugarcane | Pest management | Woolly aphid resistant variety | Kharif 2008-09 | 02 | 02 | 01 | 04 | 05 | Crop is at 3 month old |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----|------------------------|--------------------------------|--|----------------|-----|-----|----|----|----|-----------------------|
| 13 | Chilli | Crop production | Production technology of HYV Samrudhi in Chilli | Kharif-2008-09 | 01 | 01 | -- | 05 | 05 | Flowering stage |
| 14 | French bean | Crop production | Production technology of HYV Arka Komal in French bean | Kharif-2008-09 | 02 | 02 | 02 | 03 | 05 | Crop is harvested |
| 15 | Onion | Crop production | Production technology of HYV Arka Kalyan in Onion | Kharif-2008-09 | 01 | 01 | 03 | 02 | 05 | Bulb maturation |
| 16 | Areca nut | Integrated Nutrient Management | Micronutrient application | Kharif 2008-09 | 02 | 02 | 04 | 06 | 10 | On going |
| 17 | Banana | Nutrient management | Micronutrient application | Kharif 2008-09 | 01 | 01 | 02 | 03 | 05 | Crop is six month old |
| 18 | Co-3 fodder production | Nutritional management | Recent technologies in fodder production (Co-3) | Kharif 2008-09 | 0.6 | 0.6 | 02 | 01 | 03 | 45 days old crop |

B) Details of ON FARM TEST (Assessment) implemented during Kharif 2008-09

| Sl. No. | Crop | Title | No. of trails | Status |
|---------|--------|--|---------------|------------------|
| 1 | Tomato | Nutrient management in tomato | 20 | 70 days old crop |
| 2 | Tomato | Application of vegetable special in tomato | 10 | 70 days old crop |

C) Details of collaborative demonstrations during Kharif 2008-09

| Sl. No. | Season and year | Crop | Area (ha) | | No. of farmers/ demonstration | | | Status |
|---------|-----------------|----------------|------------|-------------|-------------------------------|--------|-------|---|
| | | | Sanctioned | Implemented | SC/ST | Others | Total | |
| 1 | Kharif 2008-09 | Maize NAH-2049 | 3.2 | 3.2 | 03 | 05 | 08 | Collaboration with ARS, Nagenahally, UAS, Bangalore Crop as at harvesting stage |

Annexure II

Sponsored training Programme

| Sl. No. | Title | Training type | Participant type | Discipline | Durations | No of participants | | | | Sponsoring agencies |
|------------------------------------|--|---------------|-------------------------------------|-----------------|-----------|--------------------|-------|--------|-------|---------------------|
| | | | | | | Male | | Female | | |
| | | | | | | Others | SC/ST | Others | SC/ST | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| November 2007 | | | | | | | | | | |
| 1 | Vermi composting | On campus | Farmers | Crop production | 01 | -- | -- | 62 | 56 | ZP, Davanagere |
| January & February 2008 | | | | | | | | | | |
| 2 | Sustainable integrated inland aquaculture | On campus | Farmers | Fisheries | 01 | 44 | 06 | -- | -- | NFDB, Hyderabad |
| March 2008 | | | | | | | | | | |
| 3 | Clean milk production at Hiretogalari | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 14 | 03 | 23 | -- | SHIMUL, Shimoga |
| 4 | Clean milk production at Turchagatta | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 26 | -- | -- | 08 | SHIMUL, Shimoga |
| 5 | Clean milk production at Heravanagathi hally | Off campus | Milk producing farmers & farm women | Animal Science | 01 | -- | -- | 16 | 21 | SHIMUL, Shimoga |
| 6 | Clean milk production at Kolukunte | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 04 | 04 | 17 | 09 | SHIMUL, Shimoga |
| 7 | Clean milk production at Kumblur.G | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 15 | 03 | 09 | 02 | SHIMUL, Shimoga |
| 8 | Clean milk production at Lakkashettihally | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 29 | -- | -- | 05 | SHIMUL, Shimoga |
| 9 | Clean milk production at Deetur | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 31 | 03 | 03 | 01 | SHIMUL, Shimoga |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----|---|------------|-------------------------------------|----------------|----|----|----|----|----|-----------------|
| 10 | Clean milk production at Sarathi | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 50 | 01 | -- | -- | SHIMUL, Shimoga |
| 11 | Clean milk production at Anaji | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 03 | 10 | -- | 17 | SHIMUL, Shimoga |
| 12 | Clean milk production at Anagodu | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 10 | -- | 24 | -- | SHIMUL, Shimoga |
| 13 | Clean milk production at Basavanal | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 27 | -- | 07 | -- | SHIMUL, Shimoga |
| 14 | Clean milk production at Basapura | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 23 | 01 | -- | -- | SHIMUL, Shimoga |
| 15 | Clean milk production at V. Basapura | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 31 | 01 | 12 | -- | SHIMUL, Shimoga |
| 16 | Clean milk production at Bevinahally | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 23 | 02 | 09 | -- | SHIMUL, Shimoga |
| 17 | Clean milk production at Singrihally | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 19 | -- | 08 | -- | SHIMUL, Shimoga |
| 18 | Clean milk production at Sattur | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 17 | -- | 06 | -- | SHIMUL, Shimoga |
| 19 | Clean milk production at H. Kalapanahally | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 27 | 02 | 01 | -- | SHIMUL, Shimoga |
| 20 | Clean milk production at Kenchikere | Off campus | Milk producing farmers & farm women | Animal Science | 01 | 19 | 01 | -- | -- | SHIMUL, Shimoga |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------------------|---|------------|--|----------------|----|----|----|----|----|------------------|
| 21 | Clean milk production at Hosabisalari | Off campus | Milk producing farmers & farm women | Animal Science | 01 | -- | -- | 10 | 05 | SHIMUL, Shimoga |
| 22 | Clean milk production at Ballur | Off campus | Milk producing farmers & farm women | Animal Science | 01 | -- | -- | 18 | 06 | SHIMUL, Shimoga |
| September 2008 | | | | | | | | | | |
| 23 | Development of fish culture in different water structures | On Campus | Extension officials from Department of Watershed | Fisheries | 01 | 31 | 06 | 01 | -- | DWDP, Davanagere |

Annexure III Collaborative training Programme

| Sl.No. | Title | Training type | Participant type | Discipline | Durations | No of participants | | | | Sponsoring agencies |
|---------------------|--|---------------|------------------|------------------------------------|-----------|--------------------|-------|--------|-------|--|
| | | | | | | Male | | Female | | |
| | | | | | | Others | SC/ST | Others | SC/ST | |
| October 2007 | | | | | | | | | | |
| 1 | IPM in horticultural crops | Off campus | Farmers | Plant protection | 01 | 19 | 13 | 05 | 03 | KSDH, Harihara |
| 2 | Methods of organic farming in horticultural crops | Off campus | Farmers | Horticulture | 01 | 24 | 11 | 07 | 05 | KSDH, Harihara |
| 3 | Plant protection measures in coconut & arecanut | Off campus | Farmers | Horticulture + Plant protection | 01 | 197 | 79 | 07 | 03 | APMC, Davanagere |
| August 2008 | | | | | | | | | | |
| 4 | Production technologies in onion & pest management | Off campus | Farmers | Plant protection | 01 | 15 | 07 | -- | -- | MCF, Davanagere |
| 5 | An alternative cropping pattern for paddy IPM | Off campus | Farmers | Crop production + Plant protection | 01 | 22 | 09 | 04 | 03 | Pragathi grameena bank, Attigere, Davanagere |

Annexure IV**Details of Method Demonstrations**

| Sl.No | Title | No. |
|--------------|--|------------|
| 1 | Raised seed bed preparation in vegetable crops | 02 |
| 2 | Trichoderma seed treatment in onion | 01 |
| 3 | Basin method of fertilizer application in arecanut and coconut | 10 |
| 4 | Sucker treatment in banana | 06 |
| 5 | Chemical root feeding in coconut | 02 |
| 6 | Spraying with endosulfon to control stem borer in maize | 01 |
| 7 | Seed treatment with azospirillum in ragi | 04 |
| 8 | Installation of pheromone traps to monitor stem borer in paddy | 02 |
| 9 | Seed treatment with gauch in cotton | 01 |
| 10 | Sowing technique in cotton | 02 |
| 11 | Spraying with zimag and planofix in cotton | 05 |
| 12 | Imidacloprid spray in sunflower | 02 |
| 13 | Use of groundnut stripper and decorticator | 03 |
| 14 | Rhizobium and trichoderma treatment in groundnut | 05 |
| 15 | Ha NPV use in redgram | 06 |
| 16 | Set treatment with carbendizim in sugarcane | 02 |
| 17 | Paired row technique in sugarcane | 01 |
| 18 | Application of Neem cake in tomato | 02 |
| 19 | Preparation of value added products Maize, Ragi and Soybean | 04 |
| 20 | Preparation of envelopes of different sizes | 01 |
| 21 | Safe storage of pulses | 02 |
| 22 | Preparation of soap powder and other products | 02 |
| 23 | Fruits and vegetable processing and preservation | 02 |
| 24 | Stocking and fertilization management | 02 |
| 25 | Feeding regime | 01 |
| 26 | Sampling fish for weight | 01 |
| 27 | Pre-harvest sampling for weight | 01 |
| 28 | Enrichment of dry fodder with 4% urea | 02 |

Annexure V**Lectures Delivered**

| Sl. No | Title | Resource Person |
|---------------|---|---|
| 1 | Conservation of biodiversity- vermicomposting as a method | Mr.Basavanagowda M.G. Dr. Roopa S. Patil |
| 2 | Kitchen gardening and production technology of Arecanut and Coconut | Mr.Basavanagowda M.G. |
| 3 | Activities of Taralabalu KVK | Mr.Basavanagowda M.G. |
| 4 | Income generating activities for rural women | Ms. Kavitha P. |
| 5 | Integrated Nutrient Management | Dr. Rajakumar G.R. |
| 6 | Integrated Nutrient Management | Dr. Rajakumar G.R. |
| 7 | Concepts of organic farming | Dr. Devaraja T.N. Mr.Basavanagowda M.G. |
| 8 | Concepts of modern agriculture | Mr.Basavanagowda M.G. |
| 9 | Rain water harvesting & importance of agriculture | Mr. Mallikarjuna B.O. |
| 10 | Onion production technology & plant protection | Mr.Basavanagowda M.G. Mr. Prasanna kumara. |
| 11 | Problems in arecanut and coconut production | Mr.Basavanagowda M.G. |
| 12 | Dry land Horticulture | Mr.Basavanagowda M.G. |
| 13 | Importance of vermicompost in Biodiversity conservation | Mr.Basavanagowda M.G. |
| 14 | Techniques of organic farming in Horticulture crops | Mr.Basavanagowda M.G. |
| 15 | Sustainability in Organic farming | Mr.Basavanagowda M.G. |
| 16 | Planning of different projects funded by CAPART | Mr. Mallikarjuna B.O. |

Annexure VI**TV Programmes telecasted in E-TV Kannada and Kasthuri**

| SL. No. | Date | Title | Scientist |
|----------------|-------------|--|-----------------------|
| 1. | 28-12-2007 | Management of BHC in Sunflower | Dr. Roopa S. Patil |
| 2. | 28-01-2008 | Ornamental fish rearing | Dr. Devaraja T.N. |
| 3. | 29-01-2008 | Pore tray nursery | Mr.Basavanagowda M.G. |
| 4. | 05-02-2008 | Effective land utilization | Mr. Mallikarjuna B.O. |
| 5. | 06-02-2008 | Management of BHC in Coconut | Mr.Basavanagowda M.G. |
| 6. | 28-02-2008 | Sunflower production technology | Mr. Mallikarjuna B.O. |
| 7. | 25-03-2008 | Management of button shedding and control of bud rot in Arecanut | Mr.Basavanagowda M.G. |

Radio Talks

| SL. No. | Date | Title | Scientist | Venue |
|---------|------------|--|---|------------------|
| 1. | 15-10-2007 | Bio Cotton | Mr. Mallikarjana B.O | AIR, Bhadravathi |
| 2. | 15-10-2007 | Women entrepreneurship development | Ms. Kavitha P. | AIR, Bhadravathi |
| 3. | 16-10-2007 | Plant protection measures in Sunflower | Dr. Roopa S. Patil | AIR, Bhadravathi |
| 4. | 23-11-2007 | Management of BHC in Coconut | Mr. Basavanagowda M.G. | AIR, Bhadravathi |
| 5. | 07-01-2008 | Interaction of farmer and scientist | Dr. Devaraja T.N. Mr. Mallikarjuna B.O | AIR, Bhadravathi |
| 6. | 09-01-2008 | Role of TKVK in farming community | Dr. Devaraja T.N. Mr. Mallikarjuna B.O | AIR, Bhadravathi |
| 7. | 12-01-2008 | Use of farm waste for vermi composting and enrichment of compost | Dr. Devaraja T.N. Mr. Mallikarjuna B.O | AIR, Bhadravathi |
| 8. | 04-02-2008 | Value added products from Ragi and Maize | Ms. Kavitha P. | AIR, Bhadravathi |
| 9. | 06-02-2008 | Integrated inland fish farming for small farmers | Dr. Devaraja T.N. | AIR, Bhadravathi |
| 10. | 08-02-2008 | Improved cultivation practices in Groundnut | Mr. Mallikarjuna B.O | AIR, Bhadravathi |
| 11. | 18-02-2008 | Areca nut nursery | Mr. Basavanagowda M.G. | AIR, Bhadravathi |
| 12. | 01-04-2008 | Prevention and control of foot and mouth diseases in livestock | Dr. Jayadevappa G.K. | AIR, Bhadravathi |
| 13. | 08-06-2008 | Larvicidal ornamental fishes | Dr. Devaraja T.N. | AIR, Bhadravathi |
| 14. | 03-07-2008 | Alternative cropping pattern | Dr. Devaraja T.N. Mr. Mallikarjuna B.O Ms. Kavitha P. | AIR, Chitradurga |
| 15. | 29-08-2008 | Friday special – Programme based on film songs | Dr. Devaraja T.N. | AIR, Bhadravathi |
| 16. | 31-08-2008 | Balance diet nutrient deficiency impact and control measures | Ms. Kavitha P. | AIR, Bhadravathi |
| 17. | 01-09-2008 | Seed production technique | Mr. Vijayakumar S.B. | AIR, Bhadravathi |
| 18. | 05-09-2008 | IPM in paddy | Mr. Prasanna Kumar N. | AIR, Bhadravathi |
| 19. | 08-09-2008 | Dry land Horticulture | Mr. Basavanagowda M.G. | AIR, Bhadravathi |
| 20. | 11-09-2008 | Lignin decomposing earthworms | Mr. Mallikarjuna B.O | AIR, Bhadravathi |
| 21. | 14-09-2008 | Role of bio-fertilizers in agriculture | Dr. Pradeep H.M. | AIR, Bhadravathi |
| 22. | 17-09-2008 | Enrichment of low quality feeding stuffs | Dr. Jayadevappa G.K. | AIR, Bhadravathi |

Annexure VII**Human Resource Development of KVK Personnel**

| Sl.No | Name/Discipline | Area of training | Organization/ institutions where training offered | Duration (Days) | Date |
|--------------|---|---|--|----------------------------|----------------------------|
| 1. | Ms. Kavitha P. Home Science | Bakery training and value addition | UAS-ZCU, Hebbal Bangalore | 5 | 8-04-08 to 12-04-08 |
| 2. | Mr. Mallikarjuna B.O. Agronomy | Farmer Field School (FFS) | UAS-ZCU, Hebbal Bangalore | 6 | 21-04-08 to 26-04-08 |
| 3. | Mr. Jayadevappa G. K. Animal Science Ms. Kavitha P. Home Science | Village Resource Center (VRC) operators training | UAS-ISRO, GKVK Bangalore | 1 | 20-06-08 |

National Symposium

| Sl.No | Name/Discipline | Topic | Organization/ institutions where training offered | Duration (Days) | Date |
|--------------|-----------------------------------|---|--|----------------------------|--------------------------------|
| 1. | Mr. Mallikarjuna B.O. Agronomy | Integrated approaches for productivity enhancement in agriculture | Annamalai University Tamilnadu | 2 | 13-03-2008 to 14-03-2008 |

Annexure VIII**Workshops/ Seminars/ Training**

| Sl.No | Discipline | Area of training | Organization/ institutions where training offered | Duration (Days) | Date |
|--------------|--|--|--|----------------------------|----------------------------------|
| 1. | Mr. Basavanagowda M.G. Horticulture | Organic farming management of pest and diseases in arecanut | Davanagere | 1 | 6-12-2007 |
| 2. | Dr. Devaraja T.N. Fisheries | National resources data management system application for district development | Davanagere | 1 | 19-12-2007 |
| 3. | Mr. Basavanagowda M.G. Horticulture | CAPART project guidelines | Davanagere | 1 | 26-12-2007 |
| 4. | Mr. Mallikarjuna B.O. Agronomy | 2 nd stage planning execution for JSYS | Davanagere | 1 | 17-01-2008 |
| 5. | Dr. Devaraja T.N. Fisheries Mr. Basavanagowda M.G. Horticulture | Bio technological strategies for bio diversity conservation | Kuvempu University, Shimoga | 1 | 13-03-2008 to 15-03-2008 |
| 6. | Mr. Mallikarjuna B.O. Agronomy | ATMA workshop | Davanagere | 1 | 19-03-2008 to 20-03-2008 |
| 7. | Mr. Mallikarjuna B.O. Agronomy | Cotton annual review meeting | Bangalore | 2 | 04 -04-2008 to 05-04-2008 |
| 8. | Ms. Kavitha .P Home Science | Bakery training and value addition | Bangalore | 5 | 08-04 -2008 to 12-04- 2008 |